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Government of India,

PRINTING DEPARTMENT.

HAND-BOOK

FOR

THE CENTRAL PRESS.

PRELIMINARY ISSUE,

ESTABLISHMENT, AND DIVISIONS I TO V.

CALCUTTA:

OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING.

1876.

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INTRODUCTION.

THE main objects of this Hand-Book are to place clearly before the employés what their duties are, and how those duties should be performed; to what payments they are entitled for piece work; and to what privileges they are admitted as members of a permanent establishment under the Government. It is not intended to instruct the employés of the Press in the rudiments of their profession, which can be more easily and effectually acquired by practical tuition and personal observation than through the medium of any treatise that could be written on the subject of printing, but to make them acquainted with the rules of the office, and with the instructions laid down for their guidance generally.

The rules should be carefully perused by all employed in the office, and, as far as possible, be committed to memory.

The absentee rules have been so framed that, with ordinary attention paid to them, no man need render himself liable to the prescribed penalties. The rules, however, will be strictly enforced, as irregularity in attendance retards work and causes expense to the office.

Men on the permanent establishment should be particularly careful not to infringe the rule laid down in paragraph 7, which entails dismissal. Liberal provision has been made, in accordance with the Civil Leave Code, for leave being granted for certain periods. There is therefore no excuse for absence without leave.

The attention of compositors and pressmen, and of others immediately connected with case and press work, is particularly directed to the instructions contained in Divisions II. and III. respectively. They should understand that the quality of their work must not be sacrificed to a desire to produce a maximum quantity, and that any efforts in this direction can only result in loss to themselves, as faulty workmanship will be rectified at their own cost.

The steady and industrious workman will find that he will derive great benefit by a careful observance of the rules and of the instructions laid down for his guidance.

A. SANDERSON,
Deputy-Superintendent.

E. J. DEAN,
Superintendent.

1st September 1876.

HAND-BOOK

FOR

THE CENTRAL PRESS.

ESTABLISHMENT.

A—DISTRIBUTION. | B—CLASSIFICATION.

C—RULES.

A—DISTRIBUTION.

1. The distribution of the establishment is arranged as follows:—

DIVISION I.—CLERICAL WORK.

SUB-DIVISION 1.—Administration and Correspondence.
" 2.—Cash.
" 3.—Military, Public Works Department, and Post Office Forms.
" 4.—Books.
" 5.—Gazette.
" 6.—Stock and Perishable Articles.
" 7.—General Accounts.

DIVISION II.—CASE WORK.

SUB-DIVISION 1.—Register Book-keepers, Dispatchers, and Computers.
" 2.—Readers and Copy-holders.

Distribution.

DIVISION II.—CASE WORK—*continued.*

SUB-DIVISION 3.—Composition of Book, Current, and Job Work—

1st Section.—Books.
2nd „ Financial Department Current Work.
3rd „ Reports.
4th „ Jobbing.

SUB-DIVISION 4.—Composition of Gazette, and Statement and Form Work—

5th Section.—Gazette and Statements.
6th „ Statements.
7th „ Forms.
8th „ Departmental Lists.

SUB-DIVISION 5.—Composition of Secretariat Work—

9th Section.—Financial Department Proceedings.
10th „ Legislative Department Proceedings.
11th „ Revenue Department Proceedings.
12th „ Revenue Department Current Papers.
13th „ Vernacular Work.

SUB-DIVISION 6.—Judicial Work—

14th Section.—Appeal Cases.

SUB-DIVISION 7.—Impositors and Carpenters.
„ 8.—Distributors.
„ 9.—Proof Pressmen and Forme Carriers.

Distribution.

DIVISION III.—PRESS WORK.

SUB-DIVISION 1.—Machine Presses.
" 2.—Hand Presses.

DIVISION IV.—LITHOGRAPHY.

SUB-DIVISION 1.—Writing and Drawing.
" 2.—Presses.

DIVISION V.—STATIONERY.

SUB-DIVISION 1.—Stationery.
" 2.—Warehouse, including Numberers, Perforators, and Hand Rulers.
" 3.—Ruling Machines.
" 4.—Envelope Making.

DIVISION VI.—BINDERY.

SUB-DIVISION 1.—Forwarders.
" 2.—Forwarders in boards.
" 3.—Finishers.

DIVISION VII.—FOUNDRIES.

SUB-DIVISION 1.—Type Casting.
" 2.—Stereotyping.
" 3.—Electrotyping.

DIVISION VIII.—GENERAL.

SUB-DIVISION 1.—Peons.
" 2.—Office Servants.

B—CLASSIFICATION.

2. The establishment is classified as follows :—

CLASSIFICATION.		ANNUAL INCREMENT.		RATES PER HOUR FOR MEN WORKING ON TIME.				
CLASS.	R. R.	R.	a.		R. R.	R.	a.	p.
1.—200 to	250	10	0	14, earning above	40 . .	0	4	0
2.—175 „	200	10	0	15, „ „	35 to 40	0	3	6
3.—150 „	175	10	0	16, „ „	30 „ 35	0	3	0
4.—125 „	150	10	0	17, „ „	25 „ 30	0	2	9
5.—110 „	125	10	0	18, „ „	20 „ 25	0	2	3
6.—100 „	110	10	0	19, „ „	17 „ 20	0	1	9
7.— 90 „	100	10	0	20, „ „	15 „ 17	0	1	6
8.— 80 „	90	5	0	21, earning	15 . .	0	1	4
9.— 70 „	80	5	0	22, „	14 . .	0	1	3
10.— 60 „	70	5	0	23, „	13 . .	0	1	2
11.— 55 „	60	5	0	24, „	12 . .	0	1	1
12.— 50 „	55	5	0	25, „	11 . .	0	1	0
13.— 45 „	50	5	0	26, „	10 . .	0	0	11
14.— 40 „	45	2	8	27, „	9 . .	0	0	10
15.— 35 „	40	2	8	28, „	8 . .	0	0	9
16.— 30 „	35	2	8	29, „	7 . .	0	0	8
17.— 25 „	30	2	8	30, „	6 . .	0	0	7
18.— 20 „	25	2	8	31, „	5 . .	0	0	5
19.— 17 „	20	2	8	32, „	4 . .	0	0	4
20.— 15 „	17	1	0					
21.— 15		1	0					
22.— 14								
23.— 13								
24.— 12								
25.— 11								
26.— 10								
27.— 9								
28.— 8								
29.— 7								
30.— 6								
31.— 5								
32.— 4								

C—RULES.

1. Attendance.
2. Overtime.
3. Holidays.
4. Leave.
5. Pensions.

1. Attendance.

3. MORNING ATTENDANCE.—Any man presenting himself for morning work after 7 o'clock is fined one hour's pay.* The roll is closed at 7-15, after which no one is admitted till the hour of day attendance. Men are not allowed to commence work before 6-45 A.M., unless ordered to do so.

4. *Non-attendance for Morning Work.*—Any man who has been duly warned to attend office for morning work, and fails to do so, is fined one hour's pay. Frequent repetition of this offence, unless a medical certificate or prescription is produced, subjects the offender to a fine of half a day's pay for every morning he is absent. Examiners absenting themselves pay, in addition, the extra of their copy-holders if the latter are not employed.

5. DAY ATTENDANCE.—Any man coming after 9-55 A.M. is fined one hour's pay. The roll is closed at 10-30, after which there is no admittance. Men are not allowed to commence work before 9-55 A.M., or to work after 5 P.M., unless ordered to do so.

6. *Frequent Late Day Attendance.*—Men who frequently come late to office are, in addition to being fined one hour's pay, subject to suspension from duty for a period not exceeding seven days.

* "Pay" includes the earnings of men on piece work according to the maximum of their respective classes.

Attendance.

7. *Absence from Day Attendance for a period not exceeding seven days,* subjects the absentee—

(a) *if a salaried man on the permanent establishment, whose pay is not less than Rs. 100 a month,* to a deduction of one day's pay with loss of service and to a fine of two hours' pay for each day's absence, unless a medical certificate or prescription is produced;

(b) *if a salaried man on the permanent establishment, whose pay is less than Rs. 100 per month,* to a deduction of one day's pay with loss of service and, unless a medical certificate or prescription is produced, to a fine of two hours' pay for each day's absence;

(c) *if a piece-work man on the permanent establishment,* to a loss of one day's service and, unless a medical certificate or prescription is produced, to a fine of two hours' pay for each day's absence;

(d) *if a salaried man on the extra establishment,* to a deduction of one day's pay and, unless a medical certificate or prescription is produced, to a fine of two hours' pay for each day's absence;

(e) *if a piece-work man on the extra establishment,* to a fine of two hours' pay for each day's absence, unless a medical certificate or prescription is produced.

The amount deducted on account of fines not to exceed 4 annas per hour.

Overtime.

8. *Absence from Day Attendance for a period exceeding seven days, unless a medical certificate or prescription has been forwarded,* subjects the absentee to dismissal.

9. *Medical Certificates and Prescriptions* must reach the office not later than the seventh day from date of absence.

10. *Sundays and Holidays occurring during absence without leave* are reckoned as working days, and the rules in paragraph 7 are enforced, with the exception of the fine of two hours' pay.

11. NIGHT ATTENDANCE.—Each man working overtime reports himself as he leaves office to the roll-keeper, who enters in the night attendance book the number of hours worked after 5 P.M. Salaried men are not paid extra for working up to 6 o'clock, but if their attendance is required after that hour, their overtime reckons from 5 o'clock.

12. REPORTS OF ATTENDANCE.—Men should be careful, on entering and leaving office, to report themselves to the roll-keeper, and to see that their attendance is duly entered, as all disputes on this point are decided in accordance with the entries in the attendance books. Men neglecting to report their attendance are liable to a fine.

13. LEAVE DURING OFFICE HOURS is not granted except in cases of sickness.

2. Overtime.

14. *Overtime of men on salaries* is paid for at the rate of their wages. Thus, one morning extra, from 7 till 10 A.M., or one night extra, from 5 till 8 P.M.,

is reckoned as half a day, and is paid for accordingly; but the lowest amount paid for an extra is 2 annas and the highest is 2 rupees. Salaried men are not paid for working up to 6 o'clock, but if their attendance is required after that hour, their overtime reckons from 5 o'clock.

3. Holidays.

15. *Holidays.*—In accordance with Financial Department Notifications No. 64, dated 15th April 1862, and No. 3464, dated 29th October 1867, the following holidays are allowed, provided the state of the work will admit of the office being closed:—

	No. of days.		No. of days.
New Year's Day . . .	1	Janma Ashtami . . .	1
Srí Panchomi . . .	2	Mahálayá	1
Dol Játtrá	1	Durga and Lukhi Pujas	12
Chait Sankránti . . .	1	Kálí Puja	2
Good Friday	2	Jagadhátrí Puja . . .	2
Queen's Birthday . . .	1	Christmas Day . . .	3
Dasahárá	1		

Salaried men who are required to attend on any of the above days on account of any special work receive one day's pay extra for every day's attendance, but when the whole establishment is at work no extra pay is allowed.

4. Leave.

16. *Leave to men on salaries.*—Salaried men on the permanent establishment, whose pay is not less than one hundred rupees a month, may be allowed leave, at the discretion of the Superintendent, and subject to the

conditions specified in the *Civil Leave Code of 1873*, as follows:—

(a) *Casual Leave*, (not exceeding 15 days in one year), on full pay,—*Chap. XIV., Sec. 69, Clause 3.* This leave is not entered in Service Books.

(b) *Privilege Leave*, on full pay or salary,—*Sup. F, Sec. 12.*

(c) *Leave on Medical Certificate*, on half salary,—*Sup. F, Secs. 3 and 4.*

(d) *Leave on Private Affairs*, on half salary,—*Sup. F, Secs. 5 and 6.*

(e) *Furlough*, on half salary,—*Sup. F, Secs. 7 and 8.*

(f) *Subsidiary Leave*, on half salary,—*Sup. F, Sec. 10.*

(g) *Leave without Allowances*,—*Sup. F, Sec. 9.*

Leave may also be granted, under the above rules, to salaried men whose pay is less than one hundred rupees a month, provided it can be done without imposing any cost upon the office,—*Sup. F, Sec.* 1 (*b*).

17. *Leave to Men on Piece Work.*—Men on the permanent establishment, employed on piece work, may be allowed, in instalments, fifteen days' leave of absence during the year; also one month's leave of absence in each year which cannot be taken in instalments, but may accumulate for three years and be taken at the end of that period. The leave specified in this paragraph does not carry allowance, but the time counts for gratuity or pension. While on such leave the mean of a man's class is reckoned in calculating the amount of his gratuity or pension.

5. Pensions.

18. Men on fixed salaries, as well as those working on piece rates, are eligible to pension and gratuity on the

conditions prescribed in the *Civil Pension Code of 1873*, provided they are on the permanent establishment.—*Secs. 17 and 20.*

1. Inferior and Superior Service.—Service on pay not exceeding rupees 10, and service in the capacities of Distributors, Pressmen, Machinemen, Jemadars, Type-casters, Maistris, Warehousemen, Numberers, Perforators, Carpenters, Peons, and menial servants, is inferior service; all other service is superior service.—*Secs. 38 and 39.*

2. Periods of Leave.—Periods of absence on leave other than privilege or subsidiary leave are not reckoned as superior service. An inferior servant counts periods of authorised leave as service.—*Secs. 41 and 42.*

3. Suspension.—Time passed under suspension adjudged as a specific penalty does not count.—*Sec. 43.*

4. Classes of Pension and Gratuity.—The following pensions and gratuities may be awarded for approved service:—

A—Superior Service.

(a) *Compensation Gratuity*, on reduction of establishment—

(b) *Invalid Gratuity*, on medical certificate—

After a service of less than 15 years, one month's pay for each year of service; the whole not to exceed twelve months' pay.—*Sec. 56 (a).*

(c) *Compensation Pension*—

(d) *Invalid Pension*—

After a service of 15 years and less than 25 years, pension not exceeding one-third of average pay.—*Sec. 56 (b).*

After a service of 25 years, pension not exceeding one-half of average pay.—*Sec. 56 (c).*

Pensions.

(e) *Superannuation Gratuity and Pension,* on attaining the age of 55 years—

The same as compensation and invalid gratuity and pension.—*Sec. 57.*

(f) *Retiring Pension*—

After a service of 30 years, pension not exceeding one-half of average pay.—*Sec. 58.*

B—Inferior Service.

(g) *Compensation Gratuity*—

Invalid Gratuity—

(*a*) Service of less than 5 years,—*nil.*

(*b*) „ 5 years and less than 10 years,—three months' pay.

(*c*) „ 10 years and less than 15 years,—four months' pay.

(*d*) „ 15 years and less than 20 years,—five months' pay.

(*e*) „ 20 years and more,—six months' pay. —*Sec. 63* (*a*).

(i) *Compensation Pension*—

Service not less than 30 years,—half pay not exceeding 4 rupees.—*Sec. 63* (*b*).

(j) *Invalid Pension*—

Service not less than 35 years,—half pay not exceeding 4 rupees.—*Sec. 63* (*c*).

5. *Definition.*—"Pay" means the pay which the employé was receiving immediately before his retirement from the service; "average pay" means the average calculated upon the last 5 years of service. In the case of men working on piece rates, the former means t e average earnings of the last six months of service, and the latter

the average of the last 72 monthly bills. For superior service, bills under 10 rupees are not reckoned as service.—*Secs. 66 (a) and (b) and 67 (c)* [4].

19. *Service Books.*—Every man on the permanent establishment is required to keep a Service Book.—*Sec. 69.*

DIVISION I.—CLERICAL WORK.

1. ADMINISTRATION AND CORRESPONDENCE.
2. CASH.
3. FORMS.
4. BOOKS.
5. GAZETTE.
6. STOCK, &c.
7. GENERAL ACCOUNTS.

1. Administration and Correspondence.

20. This sub-division keeps the diaries of letters received, with indexes; dockets the letters; and drafts the ordinary correspondence of the office. The details are as follow:—

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORM No. 1. Administration, 1.	Diary of Letters received.	1, Number and date of letter; 2, Details of receipt; 3, Subject; 4, Superintendent's orders; 5, Details of disposal.
FORM No. 2. Administration, 2.	Letter Docket ...	1, Diary number; 2, Number and date of letter; 3, Name and designation of sender; 4, From whence dispatched; 5, Date of receipt in Press; 6, Subject; 7, Details of disposal.
FORM No. 3. Administration, 3.	Diary and Index of Letters issued.	1, Number 2, To whom sent; 3, Subject.

And so on for nine other sub-divisions.

2. Cash.

21. All monetary transactions are carried on through this sub-division, and the following are the books and forms kept for the purpose:—

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORM No. 4. Cash, 1.	Register of Remittances received by post.	1, Date of receipt; 2, Name of remitter; 3, Station from whence remitted; 4, Nature of remittance; 5, Amount received; 6, Cashiers' signature.

Cash.

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORM No. 5. Cash, 2.	Town Collection Book	1, Date of receipt; 2, From whom received; 3, To what account to be credited; 4, Bill number; 5, Amount.
FORM No. 6. Cash, 3.	General Cash Book ...	1, Folio in Receipt Ledger; 2, Date of receipt; 3, From whom received; 4, To what account to be credited; 5, Bill number; 6, Amount received; 7, Daily total; 8, Folio in Disbursement Ledger; 9, Date of disbursement; 10, To whom disbursed; 11, Nature of charge; 12, Voucher number; 13, Superintendent's signature; 14, Amount disbursed; 15, Daily total.
FORM No. 7. Cash, 4.	Register of Cheques drawn by Letter of Credit on Bank of Bengal.	1, Date of drawing; 2, Cheque number; 3, In whose favor; 4, On what account; 5, Amount of cheque; 6, Total amount for the month.
FORM No. 8. Cash, 5.	Register of Bills made over to Cashier for realization.	1, Office number; 2, Date of receipt from Accountant; 3, Against whom; 4, Amount of bill; 5, Number of voucher; 6, Date of payment.
FORM No. 9. Cash, 6.	Cash Book of Receipts and Disbursements on account of the Branch Press at Simla.	1, Folio in Receipt Ledger; 2, Date of receipt; 3, From whom received; 4, To what account to be credited; 5, Amount received; 6, Daily total; 7, Folio in Disbursement Ledger; 8, Date of disbursement; 9, To whom disbursed; 10, Nature of charge; 11, Voucher number; 12, Superintendent's signature; 13, Amount disbursed; 14, Daily total.
FORM No. 10. Cash, 7.	Register of Cheques drawn on Bank of Bengal by Letter of Credit on account of the Branch Press at Simla.	1, Date of drawing; 2, Cheque number; 3, In whose favor; 4, On what account; 5, Amount of cheque; 6, Total amount for the month.
FORM No. 11. Cash, 8.	Account Book of receipt of postage stamps.	1, Date of receipt; 2, From whom received; 3, From whence received; 4, Amount; 5, Daily total.
FORM No. 12. Cash, 9.	Register of Currency Notes received and disbursed.	1, Date of receipt; 2, From whom received; 3, Number of note; 4, Value of note; 5, Date of disbursement; 6, To whom disbursed; 7, Number of note; 8, Value of note.
FORM No. 13. Cash, 10. (Comptroller General's No. 9.	Form of Bill for Contingent Charges.	1, Number of voucher; 2, Description of charge; 3, Amount.

Dispatch of Forms.

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORM No. 14. Cash, 11.	Cash Book of disbursements for cart and cooly hire.	1, Date of disbursement; 2, For what purpose; 3, To what department debitable; 4, Number of coolies or carts; 5, Amount; 6, Daily total.
FORM No. 15. Cash, 12.	Cash Book of disbursements on account of bearing and insufficient postage.	1, Date of disbursement; 2, Cover from whom received; 3, Bearing or insufficient; 4, Daily total.
FORM No. 16. Cash, 13.	Register of stamps received from Stationery Office for enfacement.	1, Date of receipt; 2, Value of stamps; 3, Number of sheets; 4, Instructions for enfacement; 5, Date of return to Stationery Office.

3. Military, Public Works Department, and Post Office Forms.

22. In this sub-division is transacted all business connected with the storage and dispatch of forms, and for which the following books and forms are used :—

Office & Sub-Divisional Nos.	*Name of Book or Form.*		*Details.*
	Registers of Forms given to Press :—		1, Date given to Press; 2, Deputy Superintendent's signature; 3, Register number; 4, Description of forms; 5, Number of copies; 6, Number of impressions; 7, When received from Press.
FORM No. 17. Forms, 1.	Military Forms	Chargeable and supplied at English prices.	
FORM No. 17*a*. Forms, 1*a*.	War Office Forms		
FORM No. 17*b*. Forms, 1*b*.	Bengal Forms—Military	Gratis	
FORM No. 17*c*. Forms, 1*c*.	Ditto —Civil ...		
FORM No. 17*d*. Forms, 1*d*.	Post Office Forms—Bengal.		
FORM No. 17*e*. Forms, 1*e*.	Post Office Forms—Madras.		
FORM No. 17*f*. Forms, 1*f*.	Commissariat Forms ...		
FORM No. 17*g*. Forms, 1*g*.	Schools, Savings Banks, Studs, and Barrack Forms.		
FORM No. 17*h*. Forms, 1*h*.	P. W. D. Forms	Accounts. Railway & Revenue. Military Branch.	

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Dispatch of Forms.

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORMS Nos. 18 AND 18*a* TO 18*h*. Forms, 2 and 2*a* to 2*h*.	Forms Diaries of Indents received for the same forms as 17*a* to 17*h*, with Indices.	1, Diary number; 2, Details of receipt; 3, Subject; 4, Superintendent's orders; 5, Details of disposal; 6, Special orders, if any.
FORMS Nos. 19 AND 19*a* TO 19*h*. Forms, 3 and 3*a* to 3*h*.	Indent Dockets for the same forms as Nos. 17 and 17*a* to 17*h*.	1, Diary number; 2, Number and date of indent; 3, Name and designation of indenting officer; 4, Name of station; 5, Date of receipt in Press; 6, Subject; 7, Details of disposal.
FORM No. 20. Forms, 4.	Voucher Books of Military and P. W. D. Forms, payable.	1, Voucher number and date; 2, To whom sent; 3, Form numbers; 4, Description of forms; 5, Number of copies; 6, Amount charged; 7, Signature and designation of receiver, and name of station; 8, Date of receipt.
FORM No. 21. Forms, 5.	Diary of Issues of Military Forms, payable.	1, Voucher number and date; 2, To whom sent; 3, Form numbers; 4, Description of forms; 5, Folio in Forms Day Book; 6, Diary number; 7, Date on which voucher was received back.
FORM No. 22. Forms, 6.	Voucher Books of War Office Forms, payable at English rates.	1, Voucher number and date; 2, War Office Form number; 3, Name and description of forms; 4, Number of copies; 5, Full price; 6, Amount to be paid by indenting officer; 7, Amount to be charged to Government; 8, Total amount; 9, Signature and designation of receiver, and name of station; 10, Date of receipt.
FORM No. 23. Forms, 7.	Diary of Issues of War Office Forms, payable at English rates.	1, Voucher number and date; 2, War Office Form number; 3, Name and description of forms; 4, Number of copies; 5, Full price; 6, Amount to be paid by indenting officer; 7, Amount to be charged to Government; 8, Total amount 9, Folio in Forms Day Book; 10, Diary number; 11, Date on which voucher was received back.
FORMS Nos. 24 AND 24*a* TO 24*e*. Forms, 7 and 7*a* to 7*e*.	Voucher Books of Forms issued gratis (same as 17*b* to 17*g*).	1, Voucher number and date; 2, To whom forwarded; 3, Number of form; 4, Description of form; 5, Size of paper; 6, Number of copies; 7, Name and designation of receiver, and name of station 8, Date of receipt.

Books.

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORMS NOS. 25. AND 25*a* TO 25*e*. Forms, 8 and 8*a* to 8*e*.	Diary of Issues of gratis Forms (same as 17*b* to 17*g*).	1, Voucher number and date; 2, War Office Form number; 3, Name and description of forms; 4, Number of copies; 5, Full price; 6, Amount to be paid by indenting officer; 7, Folio in Stock Ledger; 8, Diary number; 9, Date on which voucher was received back.
FORM NO. 26. Forms, 9.	Day Book of Chargeable Forms.	1, Diary number; 2, Voucher number; 3, To whom sent; 4, Description of forms; 5, Amount charged to indenting officer; 6, Amount charged to Government; 7, Total amount; 8, Folio in Forms Cash Ledger.
FORM NO. 27. Forms, 10.	Forms Cash Ledger ...	1, Name of indenting officer; 2, Date of issue of forms; 3, Voucher number; 4, Folio in Day Book; 5, Amount charged; 6, Date of receipt of payment; 7, Receipt number; 8, Folio in General Cash Book; 9, Amount received.
FORMS NOS. 28 AND 28*a* TO 28*h*. Forms, 11.	Forms Stock Ledgers (for the same forms as Nos. 17 and 17*a* to 17*h*).	1, Name or number of form; 2, Date taken on to stock; 3, Register number; 4, Balance on 31st March last; 5, Number of copies; 6, Date of issue; 7, voucher number; 8, Number of copies issued.

4. Books.

23. Books are received and kept in stock for distribution and sale on account of Government. The details are given below :—

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORM NO. 29. Books, 1.	Diary of Letters received	1, Number; 2, Details of receipt; 3, Subject; 4, Superintendent's orders; 5, Details of disposal.
FORM NO. 30. Books, 2.	Day Book of books received for distribution and sale.	1, Date of receipt; 2, From whom received; 3, Title of book; 4, Number of copies; 5, Rate per copy; 6, Amount; 7, Total; 8, Folios in Stock and Personal Ledgers.
FORM NO. 31. Books, 3.	Voucher Book ...	1, Number and date of voucher; 2, To whom sent; 3, Title of book; 4, Amount; 5, Name and designation of receiver; 6, Station; 7, Date of receipt.

Gazette.

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORM No. 32. Books, 4.	Diary of Issues ...	1, Number and date of voucher; 2, To whom sent; 3, Title of book; 4, Amount; 5, Diary number; 6, Folio in Day Book; 7, Date on which voucher was received back.
FORM No. 33. Books, 5.	Day Book of Issues and Adjustment.	1, Date of receipt of indent and of credit in Cash Account Book; 2, Number in Diary of Letters received; 3, Voucher number; 4, To whom supplied; 5, Folio in Stock Ledger; 6, Title of book; 7, Price per copy; 8, Total amount; 9, Amount received; 10, Balance debit or credit; 11, Difference how adjusted.
FORM No. 34. Books, 6.	Stock Ledger ...	1, Title of work; 2, Date of receipt; 3, From whom received; 4, Number of copies received; 5, Rate per copy; 6, Amount; 7, Total; 8, Folio in Day Book of books received for distribution and sale; 9, Date of issue; 10, Voucher number; 11, Number of copies issued; 12, Rate per copy; 13, Amount; 14, Private bookseller's commission; 15, Total.
FORM No. 35. Books, 7.	Departmental Ledger...	1, Name of department; 2, Date of adjustment; 3, Details of distribution, sale, and commission; 4, Amount; 5, Date of receipt of books; 6, Title of book; 7, Number of copies; 8, Rate; 9, Amount; 10, Total.
FORM No. 36. Books, 8.	Bill Book	1, Number and date of bill; 2, Name of purchaser; 3, Title of book and number of copies; 4, Amount.

5. Gazette.

24. This sub-division distributes the Gazette to authorized officers and subscribers. The books and forms in use are as follow :—

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORM No. 37. Gazette 1.	Diary of Letters received.	1, Number; 2, Details of receipt; 3, Subject; 4, Superintendent's orders; 5, Details of disposal.

Gazette.

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORM No. 38. Gazette, 2.	Register of Departmental Orders and Notifications.	1, From what department received; 2, Number and branch; 3, Date and time of receipt.
FORM No. 39. Gazette, 3.	Distribution Lists ...	1, Name; 2, Address; 3, Number of copies.
FORM No. 40. Gazette, 4.	Day Book of Receipts ...	1, Date of receipt; 2, From whom received; 3, Details of receipt; 4, Number of copies; 5, Folio in Stock Ledger.
FORM No. 41. Gazette, 5.	Voucher Book ...	1, Number and date of voucher; 2, To whom sent; 3, Particulars of Gazette; 4, Amount; 5, Signature and designation of receiver; 6, Date of receipt.
FORM No. 42. Gazette, 6.	Diary of Sales and Extra Issues.	1, Number and date of voucher; 2, To whom sent; 3, Particulars of Gazette; 4, Amount; 5, Folio in Diary of Letters received; 6, Folio in Day Book of Issues; 7, Date on which voucher was received back.
FORM No. 43. Gazette, 7.	Day Book of Issues ...	1, Date; 2, To whom despatched; 3, Station; 4, Voucher number; 5, Number of copies; 6, Folio in Stock Ledger.
FORM No. 44. Gazette, 8.	Stock Ledger ...	1, Particulars of Gazette; 2, Date of receipt; 3, Number of copies received; 4, Folio in Day Book of Receipts; 5, Date of issue; 6, Number of copies issued; 7, Folio in Day Book of Issues.
FORM No. 45. Gazette, 9.	Subscribers' and Cash Sales Bill Book.	1, Bill number and date; 2, Name of purchaser; 3, Particulars of Gazette and number of copies; 4, Amount; 5, Date of payment; 6, Folio in Bill Book.
FORM No. 46. Gazette, 10.	Advertisement Bill Book	1, Bill number and date; 2, Name of advertiser; 3, Particulars of advertisement; 4, Amount; 5, Date of payment; 6, Folio in Bill Book.
FORM No. 47. Gazette, 11. FORM No. 48. Gazette, 12.	Register of Subscribers' and Cash Sales Bills. Register of Advertisement Bills.	1, Number in Diary of Letters received; 2, Date of bill; 3, Bill number; 4, Name; 5, Station; 6, Particulars of bill; 7, Amount; 8, Date of payment.

6. Stock and Perishable Articles.

25. All articles for the use of the office other than stationery are made over to this sub-division after being inspected and passed by the Superintendent or Deputy Superintendent; they are then stored, and issued as required. The following are the books used:—

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORM No. 49. Stock, 1.	Day Book of Printing Material and other articles.	1, Date of receipt; 2, Description of articles; 3, From whom received; 4, Quantity; 5, Number; 6, Rate; 7, Cost; 8, Total; 9, Folio in General Cash Book; 10, Folio in Stock Book; 11, Folio in Store Book; 12, Store-keeper's initials; 13, Date of issue; 14, To whom issued; 15, For what purpose; 16, Quantity; 17, Number; 18, Authority for issue; 19, Receiver's initials.
FORM No. 50. Stock, 2.	Stock Book of Printing Material and other articles.	1, Date; 2, Description of articles; 3, Quantity; 4, Number; 5, Rate; 6, Cost; 7, Total.
FORM No. 51. Stock, 3.	Day Book of Perishable articles.	1, Date of receipt; 2, Description of articles; 3, From whom received; 4, Quantity; 5, Number; 6, Rate; 7, Cost; 8, Total; 9, Folio in General Cash Book; 10, Initials; 11, Date of issue; 12, To whom issued; 13, For what purpose; 14, Quantity; 15, Number; 16, Authority for issue; 17, Receiver's initials.
FORM No. 52. Stock, 4.	Day Book of Lead, Antimony, and Type Metal.	1, Date of receipt; 2, Description of metal; 3, From whom received; 4, Quantity; 5, Rate; 6, Cost; 7, Total; 8, Folio in General Cash Book; 9, Initials; 10, Date of issue; 11, To whom issued; 12, For what purpose; 13, Quantity; 14, Authority for issue; 15, Receiver's initials.
FORM No. 53 Stock, 5.	Issue Book of Printing Material to other offices.	1, Date; 2, Description of articles; 3, To whom issued; 4, Quantity; 5, Number; 6, Amount charged; 7, Total; 8, Authority for issue; 9, Diary number; 10, Voucher number; 11, Folio in General Cash Book; 12, Folio in Stock Book.

General Accounts.

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORM No. 54. Stock, 6.	Store Book of Printing Material and other articles.	1, Date of receipt; 2, Description of articles; 3, From whom received; 4, Quantity; 5, Number; 6, Rate; 7, Cost; 8, Total; 9, Folio in Day Book of Printing Material; 10, Store-keeper's initials; 11, Date of issue; 12, To whom issued; 13, For what purpose; 14, Quantity; 15, Number; 16, Authority for issue; 17, Receiver's initials.

7. General Accounts.

26. The following are the accounts drawn up and the books kept by this sub-division :—

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORM No. 55. Accounts, 1.	Press Day Book of Charges.	1, Date; 2, Register number; 3, Voucher number; 4, Classification of work; 5, Name of work; 6, Detail of charges; 7, Amount charged: *a*, Composition; *b*, Press work; *c*, Alterations; *d*, Warehouse work, hand-ruling, perforating, and numbering; *e*, Machine-ruling; *f*, Envelope-making; *g*, Binding; *h*, Lithography—Drawing, Writing; Press work; *i*, Electrotyping; *j*, Stereotyping; *k*, Outside composition—Press work—binding; *l*, Total; 8, Number of impressions: *a*, Press room—Actual—Chargeable; *b*, Ruling machines—Actual-Chargeable; *c*, Clean proofs; 9, Lithography: *a*, Plans and forms; *b*, Impressions; 10, Folio in Ledger.
FORM No. 56. Accounts, 2.	Press Register of Accounts sent for realization.	1, Date of despatch; 2, Up to what date account rendered; 3, Number; 4, Name of officer; 5, Station; 6, Amount.
FORM No. 57. Accounts, 3.	Ledger of Monthly Charges, classified.	1, Year and month; 2, Department; 3, Books; 4, Charges for book work; 5, Proceedings, including extra copies of Index; 6, Collection copies of Proceedings; 7, Current orders; 8, Minutes and notes; 9, Envelopes and labels; 10, Enclosures of despatches to Secretary of State; 11, Gradation and distribution lists; 12, Monthly Return of Trade and Navigation; 13, Forms; 14, Miscellaneous; 15, Total; 16, Budget estimate.

General Accounts.

Office & Sub-Divisional Nos.	*Name of Book or Form.*	*Details.*
FORM No. 58. Accounts, 4.	Cash Receipt Book ...	1, Receipt number and date; 2, From whom received; 3, Amount; 4, How credited; 5, Folio in General Cash Book.
FORM No. 59. Accounts, 5.	Classified Cash Book ...	1, Date of receipt; 2, Heads of adjustment—Receipt; 3, Amount received; 4, Folio in Adjustment Ledger; 5, Date of disbursement; 6, Heads of adjustment—Disbursement; 7, Amount disbursed; 8, Folio in Adjustment Ledger.
FORM No. 60. Accounts, 7.	Adjustment Ledger ...	1, Heads of adjustment; 2, Date of receipt; 3, Date of expenditure; 4, Items of expenditure; 5, Amount expended; 6, Total; 7, Date of final adjustment; 8, Profit and loss; 9, Amount.
FORM No. 61. Accounts, 8.	List of Payments ...	1, Date; 2, Number of voucher; 3, To whom paid; 4, Particulars; 5, Amount; 6, Remarks column for Accountant General's Office.
FORM No. 62. Accounts, 9.	Cash Account ...	1, Date of receipt; 2, Reference to voucher and schedule; 3, From whom received; 4, Nature of receipt; 5, Amount; 6, Total receipts in the month; 7, Opening cash balance; 8, Total; 9, Remarks column for Accountant-General's Office; 10, Date of expenditure; 11, Reference to voucher from or to; 12, Payments; 13, Amount; 14, Total balance in Treasury; 15, Less balance of credits appropriated; 16, Net balance; 17, Remarks column for Accountant-General's Office.
FORM No. 63. Accounts, 10.	Establishment Acquittance Roll.	1, Name of employé; 2, Amount received; 3, Signature of employé.
FORM No. 64. Accounts, 11.	Register of Outstanding Bills.	1, Name; 2, Number of voucher or bill; 3, Amount of voucher or bill; 4, Forms—Private or Government account; 5, Number of Press bill; 6, Amount of bill—Press, Private, or Government account; 7, Cash advanced; 8, Total; 9, Postage; 10, Folios in old and new Ledgers.

DIVISION II.—CASE WORK.

A—CLERICAL WORK. | C—PROOF-READING.
B—CASE WORK. | D—RATES.

E—ACCOUNTS.

A—CLERICAL WORK.

27. The following books and forms are used for recording the work received into, noting its progress through, and dispatch from, the press :—

FORM NO. 65. Press, 1. REGISTER OF WORK RECEIVED, in which are entered orders for work received, and detailed instructions for disposal.

1, Number; 2, Date of receipt; 3, Name and description of document; 4, Number of forwarding letter; 5, Press Diary number; 6, Date put in hand; 7, To what section given; 8, Number of copies; 9, Details of dispatch; 10, Folio in Day Book; 11, Orders.

[*If there should be any doubt regarding the size or style of work, description of paper, or the number of copies to be printed, reference should be made to the office from which the work is received.*]

FORM NO. 66. Press, 2. PROOF DISPATCH AND RECEIPT BOOK, which is a record of proofs passing through the press.

1, Date; 2, Time; 3, Serial number of cover; 4, To whom sent; 5, Contents of cover; 6, First proof or otherwise; 7, Number of pages or galleys; 8, Number of peon book; 9, Date received back.

FORM NO. 67. Press, 3. VOUCHER FOR WORK DELIVERED, which accompanies work sent out.

1, Voucher number and date; 2, To whom sent; 3, Details of work; 4, Name and designation of receiver; 5, Date of receipt.

General Observations.

FORM No. 68. Press, 4. ORDER FOR PAYMENT OF CART AND COOLIE HIRE, in which are entered the particulars of disbursement.

1, Press voucher number; 2, Order number and date; 3, Number of coolies and rate; 4, On what account paid; 5, To what office chargeable; 6, Amount; 7, Dispatcher's initials; 8, Signature of Deputy Superintendent.

FORM No. 69. Press, 5. PRESS DIARY OF ISSUES, which is a record of work dispatched.

1, Press voucher number and date; 2, To whom sent; 3, Details of work; 4, Name and designation of receiver; 5, Date of receipt; 6, Date on which voucher was received back; 7, Press register number; 8, Previous voucher numbers; 9, copies previously dispatched; 10, Press Diary number; 11, Page in Day Book.

B—CASE WORK.

1. General Observations.
2. Composing.
3. Correcting.
4. Making up.
5. Imposing.
6. Distributing.

1. General Observations.

28. "CASE" is the term applied to all operations necessary to prepare type for the press,—composing, correcting, making up, imposing, and distributing. It is divided into three branches, *viz.*, BOOK, JOB, and FORM WORK, which include *common, tabular, scheme,* and *form* matter.

29. BOOK WORK consists of matter divided into pages, numbered and placed so as to read in progressive order when the sheet is printed and folded. It includes all

descriptions of matter and sizes of pages. These sizes are regular or irregular, according to the way in which the sheet is folded. The former include those which double their number the first and every succeeding fold of the sheet, and are designated folio, quarto, octavo, sixteens, thirty-twos, &c. The latter comprise those which fold into odd numbers before they double into the required size, and are called twelves, eighteens, twenties, twenty-fours, thirty-sixes, &c. The word "book" is generally used to denote a work of considerable extent, as distinguished from a "current paper," "job," or "form."

30. Job Work.—Jobbing is the art of combining lines of type of different characters and sizes together in the manner best calculated to produce the desired effect. It includes all descriptions of miscellaneous work,—the variety of subjects and styles precluding detailed instructions being given which could possibly suit all requirements and tastes. Some kinds of work, such as posters and advertisements, require bold and effective display; while others, such as title pages and circulars, require little contrast in the size or character of the type;—the finer the description of work, the less need of contrast and the greater need of harmony. The correct selection of the size and character of type, and the proper adjustment of blanks, spaces, and margin, are essential in good jobbing. A correct taste and judgment in this respect can only be acquired by observing minutely the effects of the variations in the appearance of jobs as they occur, and noting them for future use.

31. Form Work.—Forms are printed to facilitate business, save clerical labour, and to ensure uniformity in the keeping of accounts. Some forms are merely blank tables, the lines and headings only being printed, leaving the columns blank to be filled in with the pen; others, again, have printed matter interspersed.

32. "*Matter*" is the term applied to type composed, in whatever form, and may be briefly classed as follows:—

Common matter, the lines of which read across the page, and may be either leaded or solid.

Tabular matter, figured or otherwise, of three or four columns, with or without column heads or rules.

Scheme matter, usually figured statements or matter intricately arranged, of five columns and upwards, which may have column heads and rules.

Form matter, which may either read across the page, with blanks intervening, or consist of blank or partially blank columns with rules and column heads.

2. Composing.

33. *Composing* is the operation of setting up types, arranging them correctly into words, spacing, and justifying lines. It requires a knowledge of reading, spelling, dividing words properly, and punctuation. The principal objects of the compositor should be correctness, expedition, and a display of good taste: these cannot be attained if he does not possess a fair degree of intelligence, and all the general knowledge he can acquire will materially help him to secure this. He should bear in mind that speed is only one of the qualifications

of a good compositor, and that more money is earned by men whose composition is correct and careful, with an average degree of speed, than by those who are swift and incorrect. An intelligent and careful workman is preferred for various reasons: he turns out much more work than an inferior workman, and it is of a better description,—the result of which is an important saving in house accommodation and readers' labour. On occasions of emergency, also, work may be confidently entrusted to him, as the time occupied in correcting his proof is inconsiderable, and the work can be got out of hand speedily. Every compositor should be able to "make up" and "impose;" he should also understand the order in which work should be arranged for press; a knowledge of these being essential in carrying on the duties of his profession. An Indian compositor of moderate ability should set up from easily-read manuscript 750 ens per hour on an average, including the correction of his proofs.

34. "*Taking Copy.*"—Copy is the subject matter to be printed, whether it be manuscript or reprint, and is given out, with the necessary instructions regarding measure, type, and style, by the clickers to the compositors, who begin at the first and compose to the end of the last paragraph of their "take." It is given out in consecutive pages, each man receiving as nearly as possible an equal quantity, and in the order in which application for work is made. Statement and job work, however, should be given to those men only who are capable of composing it correctly and expeditiously. Except in cases of emergency, not less than one day's work should

be given at a time. Each man's name is written in pencil by the clicker at the beginning of his copy.

[*No excuse will be accepted for the loss of copy or proofs, and the parties to blame in this respect will pay all expense that may be incurred.*]

35. *Composition of Matter.*—The several portions of a work should be composed as follows :—

1. *The Title Page.*—Divide the title into lines, and select the type suitable in size and character to the body of the work. Every title should have one leading line, superior to all others in size, clearness, and effect. Two lines of the same length, size and style of type, should not be placed together, unless the words are so closely connected as to render this unavoidable. Catch-lines should be set up in comparatively very small type, for bold catch-lines detract from the general effect of the title. The blanks between the distinctive parts should be arranged according to their natural connection.
2. *The Dedication,* if any, in small capitals of different sizes, neatly arranged; or according to special instructions.
3. *The Preface,* in one size larger than the text, and thick-leaded.
4. *The Contents,* in two or three sizes smaller than the text.
5. *The Errata,* if any, in at least two sizes smaller than the text.

Composing.

6. *The Text,* or *body of the work.*

(a) The *first page* should bear a heading, or short title, containing merely the name of the work.

(b) The *first word* of each chapter, section, &c., should begin with a capital and be completed in small capitals, *without* indentation.

[*In standard works not of an official nature, special instructions will be given for the first word beginning the body of the work, and the parts into which it is divided, to be set in a two-line letter, without indentation, and the word completed in full capitals, ranging with the top of the initial letter.*]

(c) *Paragraphs* should be uniformly indented, as follow :—

Measures, 22 ems and under, 1 em.
23 „ to 33 ems, 1½ ems.
34 „ to 44 „ 2 „

For measures above 44 ems special instructions will be given.

(d) *Extracts,* if the text is pica, should be in one size less; if in smaller type than pica, two sizes less. The first line of each paragraph should be preceded by two inverted commas and the extract should be closed with two apostrophes.

(e) *Foot Notes,* in three sizes smaller than the text. Where notes are numerous, superior figures or letters should be used instead of asterisks, &c.

(f) *Side Notes,* in three, four, or five sizes smaller than the text, according to the quantity of note matter. Thick spaces should be placed between the words, and the space required to fill up the line should be placed at the end of it. The first line should not be indented.

(g) *Cut-in Notes,* in three, four, or five sizes smaller than the text, according to the quantity of note matter. The measure should be of a uniform width in the same work, according to the quantity of note matter and the breadth of the page.

(h) *Tabular and Scheme Matter*, in two sizes smaller than the text; but if this is impracticable owing to the quantity of matter, the next size that will take it in should be used. Tables similar to each other should be set in the same size of type. Column heads should be set in smaller type than the table.

(i) *Addresses, Signatures,* and *Designations,* in one size less than the text.

(j) *Ranging Matter,* in one size less than the text.

(k) *Appendices,* if the text is in pica, in one size smaller; if in small pica or less, in two sizes smaller. Where the number or letter as well as the subject of the appendix is referred to, the reference is printed in small type, thus—See $\frac{\textit{Appendix F}}{\text{Supply of Printing Material.}}$

(l) *The Index,* in three sizes smaller than the body of the work. Index matter to be set with hanging indentation,—*i. e.*, the first line full out, and every turned over line indented. In index, contents, and similar matter, full points should be used for leading out to the paging.

36. *Short and numerous divisions of words,* unless in very narrow measures, should be avoided as much as possible, consistent with equal spacing.

37. *Spacing* is the art of placing the proper spaces between words, &c. As the appearance of work is greatly improved by equal spacing, it must be strictly observed. No greater space than an en quadrat should be put in a thick-spaced line, and so on proportionately. Thick spaces only should be used in poetry and break-lines. The greater space should always be put before or after kerned letters as j and f. A hair space should be put before, and an en quadrat after, semicolons, colons, and notes of exclamation and interrogation. When marks of exclamation and interrogation end a sentence, they,

like periods, are followed by em quadrats. Less space may be put after commas and the letter y, and before or after such letters as v and w. Widely-leaded matter should have on an average an en quadrat between the words, while solid matter will look best with an average of a thick space. In capital and small capital lines not less than an en quadrat should be put between the words. An en quadrat only should be put after paragraph numbers and all figures or letters similarly used.

38. *Justifying lines correctly in the composing stick*—that is, spacing out each line as tightly as the measure will reasonably admit—is absolutely necessary in good composition. More especially is this the case in composing tabular and scheme matter, as any defect on account of spacing slackly may be multiplied to a serious extent, the probable consequence of which would be that type would drop out in lifting the forme, or if the forme chanced to reach the press in safety, there would still be a great risk of type being drawn out by the roller. Added to this there is the certainty that such work when printed presents an irregular and unworkman-like appearance: the matter is sure to be more or less what is termed "off its feet," and a fair and even impression is impossible. Imperfectly justified matter also endangers the chase, which is sometimes broken through the great strain on it caused by locking up too tightly, to prevent type from dropping out when the forme is being lifted. All these evils may be obviated by the careful compositor, who will see that his lines are properly justified and of equal length throughout in the same measure. To enable him to do this he must adopt

the method above mentioned of spacing his lines as tightly as the measure will reasonably admit; for in slack spacing no compositor can be certain that the line which he has just spaced out will justify exactly with those previously set up. It may happen, however, that from some cause or other a composing stick is not "just,"—*i. e.*, the width may not be equal throughout when the stick is made up to the required measure. When this is the case, if the compositor finds himself unable to remedy the defect, the circumstance should at once be brought to notice.

[*The attention of compositors is particularly directed to the two foregoing rules, as they will be fined for unequal spacing or imperfect justification.*]

39. *Justifying small with larger type* requires to be done with great care and nicety, so that the front and back of the line or lines after justification will be exactly parallel. Quadrats, leads, or strips of paper are used for this purpose, according to the difference in the sizes of type to be justified. It will of course depend upon circumstances whether the face of the letters should be made to range at the top or bottom of the line or lines.

40. *Incorrect Composition.*—If matter is found to have been incorrectly composed, the fault will be remedied at the expense of the compositor.

41. *Turning for Scarce Sorts.*—Letters temporarily substituted for others which are not procurable at the time of composition must not be turned face downwards, but the "nicks" should merely be inverted.

42. *Picking Scarce Sorts.*—When recourse to this practice is necessary, the clicker to whom the matter

sizes, and the Rates per Forme and per Page.

ER	BREVIER.			MINION.			NONPAREIL.		
B.	No. of ens in a Forme.	Amount paid per Forme.	Amount paid per Page.	No. of ens in a Forme.	Amount paid per Forme.	Amount paid per Page.	No. of ens in a Forme.	Amount paid per Forme.	Amount paid per Page.
. p.		Rs. a. p	Rs. a. p.		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
6	39,744	7 8 0	0 7 6	50,592	9 9 0	0 9 6	69,120	12 15 0	0 12 11
1	...	8 2 0	0 8 1	...	10 5 9	0 10 4	...	14 0 3	0 14 0
8	...	8 12 0	0 8 9	...	11 2 6	0 11 2	...	15 1 6	0 15 1
6	47,040	8 13 0	0 8 9	59,840	11 4 0	0 11 3	81,920	15 6 0	0 15 4
1	...	9 8 9	0 9 6	...	12 3 0	0 12 2	...	16 10 6	1 0 8
9	...	10 4 6	0 10 3	...	13 2 0	0 13 1	...	17 15 0	1 1 11
0	45,936	8 10 0	0 11 6	59,280	11 1 0	0 14 9	80,256	15 0 0	1 4 0
10	...	9 5 6	0 12 5	...	11 15 9	0 15 11	...	16 4 0	1 5 8
8	...	10 1 0	0 13 5	...	12 14 6	1 1 2	...	17 8 0	1 7 4
6	48,312*	9 0 0	0 12 0	62,016	11 10 0	0 15 6	84,480	15 12 0	1 5 0
4	...	9 12 0	0 13 0	...	12 9 6	1 0 9	...	17 1 0	1 6 9
3	...	10 8 0	0 14 0	...	13 9 0	1 2 1	...	18 6 0	1 8 6
0	36,864	6 15 0	0 13 10	47,232	8 13 0	1 1 7	64,512	12 3 0	1 8 4
0	...	7 8 3	0 15 0	...	9 8 9	1 3 1	...	13 3 3	1 10 5
0	...	8 1 6	1 0 2	...	10 4 6	1 4 6	...	14 3 6	1 12 5
3	43,680	8 4 0	1 0 6	54,912	10 5 0	1 4 7	76,544	14 7 0	1 12 10
5	...	8 15 0	1 1 10	...	11 2 9	1 6 4	...	15 10 3	1 15 3
7	...	9 10 0	1 3 3	...	12 0 6	1 8 0	...	16 13 6	2 1 8
3	53,728	10 2 0	1 4 3	66,912	12 9 0	1 9 1	92,160	17 4 0	2 2 6
8	...	10 15 6	1 5 11	...	13 9 9	1 11 2	...	18 11 0	2 5 4
1	...	11 13 0	1 7 7	...	14 10 6	1 13 3	...	20 2 0	2 8 3
0	31,416	5 13 0	1 7 3	40,368	7 8 0	1 14 0	55,488	10 5 0	2 9 3
9	...	6 4 9	1 9 2	...	8 2 0	2 0 6	...	11 2 9	2 12 8
6	...	6 12 6	1 11 1	...	8 12 0	2 3 0	...	12 0 6	3 0 1
8	38,552	7 5 0	1 13 3	48,416	9 0 0	2 4 0	66,560	12 9 0	3 2 3
9	...	7 13 9	1 15 8	...	9 12 0	2 7 0	...	13 9 9	3 6 5
2 10	...	8 8 6	2 2 1	...	10 8 0	2 10 0	...	14 10 6	3 10 7
4 0	45,152	8 7 0	2 1 9	57,904	10 14 0	2 11 6	79,200	14 13 0	3 11 3
0 6	...	9 2 3	2 4 6	...	11 12 6	2 15 1	...	16 0 9	4 0 2
8 0	...	9 13 6	2 7 4	...	12 11 0	3 2 9	...	17 4 6	4 5 1
4 3	21,168	3 15 0	0 15 9	27,280	5 1 0	1 4 3	37,440	6 15 0	1 11 9
5 5	...	4 4 3	1 1 0	...	5 7 9	1 5 11	...	7 8 3	1 14 0
0 7	...	4 9 6	1 2 4	...	5 14 6	1 7 7	...	8 1 6	2 0 4
2 9	27,768	5 4 0	1 5 0	35,200	6 9 0	1 10 3	49,088	9 3 0	2 4 9
4 3	...	5 11 0	1 6 9	...	7 1 9	1 12 5	...	9 15 3	2 7 9
5 10	...	6 2 0	1 8 6	...	7 10 6	1 14 7	...	10 11 6	2 10 10
0 3	39,984	7 8 0	1 14 0	51,040	9 9 0	2 6 3	70,720	13 5 0	3 5 3
2 5	...	8 2 0	2 0 6	...	10 5 9	2 9 5	...	14 6 9	3 0 8
4 7	...	8 12 0	2 3 0	...	11 2 6	2 12 7	...	15 8 6	3 14 1
0 3	50,204	9 6 0	2 5 6	63,104	11 13 0	2 15 3	87,040	16 5 0	4 1 3
2 11	...	10 2 6	2 8 7	...	12 12 9	3 3 2	...	17 10 9	4 6 8
5 7	...	10 15 0	2 11 9	...	13 12 6	3 7 1	...	19 0 6	4 12 1
6 3	58,424	10 14 0	2 11 6	73,200	13 11 0	3 6 9	1,01,376	18 15 0	4 11 9
9 5	...	11 12 6	2 15 1	...	14 13 3	3 11 3	...	20 8 3	5 2 0
2 7	...	12 11 0	3 2 9	...	15 15 6	3 15 10	...	22 1 6	5 8 4

into account.

belongs must be informed, so that he may arrange to have the picked sorts replaced and the matter carefully read before going to press. When sorts are picked from matter for distribution, letters of equal thickness should be substituted, to prevent the matter from going to pye.

43. *Brass Rules.*—Before cutting down brass rules, search should be made for pieces as nearly as possible of the size required.

44. *Pye.*—Compositors will be held individually responsible for any type, &c., found on the ground in the immediate vicinity of their frames. A fine of 3 pies will be imposed for every type so found, and for every type left on the imposing stone after a forme has been corrected and locked up. Any man working at a case found to contain pye will clear such case in his own time, and will be liable besides to a fine. Compositors and distributors taking over cases from each other must satisfy themselves that they are free from pye. All cases in general use in a section must be inspected frequently by the clicker, and the whole section will be held responsible for any pye found in such cases, unless the guilty person or persons can be traced. Cases must not be kept on the floor. When there is an accumulation of pye, to defray the expense of clearing it, one per cent. is deducted monthly from foremen, clickers, compositors, and distributors. Any man detected in secreting or wrongfully disposing of pye will be dismissed.

45. *Broken and defaced Type.*—A box is kept in each section in which to deposit broken and defaced type. which must not be returned to the cases.

3. Correcting.

46. *Correcting* is the operation by which errors are removed from the matter. Corrections are of two kinds: those which arise from the mistakes of compositors, and those which are caused by alterations from original copy. The former are rectified by the compositor at his cost, and the latter at the expense of the author. The time occupied by a compositor in correcting his proofs being so much time lost which he might otherwise have employed in composing, it is to his advantage that he should be correct and careful in his composition. In correcting matter on a galley, a side-stick and quoins must be placed between the type and the ledge of the galley. Equal spacing and correct justifying must be observed. Lines requiring to be overrun must be justified in the composing stick. No composing cases are allowed on the imposing slab, and space-boxes must be used while correcting. The slab must be carefully wiped down before matter is placed on it.

47. *Identification of Matter.*—The name of the compositor and the date of composition should be written on first and second proofs.

48. *Corrections in Proofs.*—A compositor finding corrections marked in one proof and altered in a subsequent one, may bring the matter to the notice of the clicker with a view to his loss of time being made good by the examiner at fault.

49. *Clean Proofs* must be clearly pulled; before they are sent out, the matter must be read twice and be carefully revised. Where the number of copies is not stated

in the requisition, enquiry should be made in forwarding the first clean proof. The copy is sent out with the proof; if it be returned, it is forwarded with the printed copies.

50. *Press Order Sheets.*—Clickers will write on press order proofs the press register number, the initials of the department, the number of copies, the description of paper, the date sent to press, the time occupied in making chargeable alterations at press, and their own initials.

51. *Final Corrections* should be made before a forme is put on the press. Loss of time caused to the press hands in making corrections after a forme has been put up on the press, is paid for, at the rates for work done on time in the table on page 10, by the party to blame for such delay. Final corrections must be revised by a reader.

4. Making up.

52. "*Making up*" is the operation of dividing matter into pages. The maker up should possess a knowledge of case work in all its details, and should thoroughly understand the manner in which the various parts of a work are arranged for press. Before making up, he should consider well any peculiarities there may be, in order to ensure uniformity in blanking out. To assist him in this, he should obtain a proof of the matter as far as composed, from which to form an idea of the best plan to be followed in making up. After arriving at a conclusion on this point, the first thing he should do is to have the head lines and blanks composed and ready for use. He should then count off the number of lines to be contained in a page and cut a gauge to serve as a standard of the length of the pages for the rest of the work.

The last line of a paragraph must never begin a page. The practice of measuring the page by placing the gauge on the ledge of the galley at the beginning of the lines instead of at the off side of the matter is objectionable, as by this method the matter is not pressed up from the bottom of the page, as it ought to be, and consequently the correct measurement of the page is not obtained. When the page is gauged it is tied up for imposing. The proper way to tie up a page is to begin at the left top corner of the page as it lies on the galley; the cord should then be wrapped thrice round from left to right, tightening it at the right top corner at each turn; after which the cord should be drawn tight through that which is wrapped on the page, so as to form a noose, the end of which is left two or three inches out, for convenience in untying the page.

53. *Size of Pages.*—Pages must be *exactly* of the measures shewn in the table on page 71, unless otherwise ordered.

54. *Arrangement of Matter.*—The several portions of a work should be in the following order:—

1. *The Title Page.*
2. *The Dedication,* if any.
3. *The Preface,* with folios in the middle of the line if the work has no running heads; otherwise, with the heading PREFACE on each page.
4. *The Contents,* with the running head CONTENTS, if running heads be used in the text; otherwise with a folio, in the same type as that used for the folios of the text, in the middle of the line.

5. *The Errata*, if any.

6. *The Text*, or *body of a work*.—The first page should bear a heading, or short title, containing merely the name of the work. If this makes only one line, one-fourth of the page will be occupied by the heading and blank at top; but if the title exceeds one line, one-third will be taken up by the heading and blank. The same rule applies to the headings of "parts" of a work. Each part will commence on an *odd* page. A proof of all preliminary matter, after being read, together with the first sheet of the text, must, in the case of every new work, be submitted for approval.

7. *Appendices*.—The first appendix should begin on an odd page, and be paged on with the text in Arabic figures.

8. *The Index* should begin on an odd page, and be paged on with the preceding matter, in Arabic figures. The running head line INDEX to be used if the work has running head lines; otherwise a folio, in the same type as that used for the folios of the text, in the middle of the line.

55. *Leading*.—Leads are not to be used in solid matter, except for the preface, without special instructions. Blanks are not to be used between paragraphs.

56. *Blank lines* after the running head lines should be in quadrats of the text type. When a head or sub-head begins a page, extra blank should be put after the head line.

57. *Folios.*—Where the prefatory matter can be printed with the first sheet, the work should be paged right through in Arabic figures. Where this cannot be done, the "title sheet" should be paged consecutively with Roman lower-case numerals, the title page and imprint at the back being counted as the first and second pages, though no folio is affixed to them. The preface, if there be no advertisement or dedication to the work, will commence with folio iii, and so on to the end of the title sheet. The text, with appendices and all other matter following it except advertisements, will be paged right through without any break, in Arabic figures. Advertisements at the end of the work will have folios in Roman lower-case numerals at the foot of the pages.

58. *Signatures.*—The signatures of the title sheets should be in italic lower-case; those in the body of the work, in small capitals. Clickers will see that signatures appear on the first page of each sheet of a work making more than one sheet.

59. *Imprints.*—The imprint should be printed on the back of the title page; and the last sheet of every work should bear an imprint in nonpareil, with the register number of the work, followed by the initials of the department to which it appertains, the number of copies printed, and the date.

5. Imposing.

60. *Imposing* is the operation by which pages are arranged and secured in chases. It is an important branch of case work, and should be thoroughly understood by every compositor. A forme may consist of one or more pages, according to the size of the sheet and

the number of folds it undergoes; the more numerous the folds, the greater the number of pages, their size being diminished in proportion. Whether the sizes are regular or irregular depends upon the way in which the sheet is folded. The former include those which double their number the first and every succeeding fold of the sheet, and are designated folio, quarto, octavo, sixteens, thirty-twos, &c.; the latter comprise those which fold into odd numbers before they double into the required size, and are called twelves, eighteens, twenties, twenty-fours, thirty-sixes, &c. The pages of each size may be imposed either as a full sheet or a half sheet. The former comprises an equal number of pages to be locked up in two formes to back each other, termed "inner" and "outer" formes. The inner forme contains the pages which are folded inside the sheet (2, 3, 6, 7, &c.); the outer forme, those outside the sheet (1, 4, 5, 8, &c.). Thus a quarto work will have eight pages of matter per sheet—four in the inner forme and four in the outer; an octavo work, sixteen pages per sheet; and so on. If the pages are correctly placed for imposition, the numbers of every two pages imposed together will correspond with the numbers of the first and last pages in the forme added together. Thus, the pages imposed together in the quarters of the first sheet of an octavo work are: 1 and 16, 13 and 4, 3 and 14, 15 and 2, 7 and 10, 11 and 6, 5 and 12, 9 and 8,—each pair of figures when added together amounting to 17. This principle is applicable to all kinds of formes. A sheet of, say, royal octavo may be taken to illustrate the mode of procedure in imposing it. The pages are arranged as

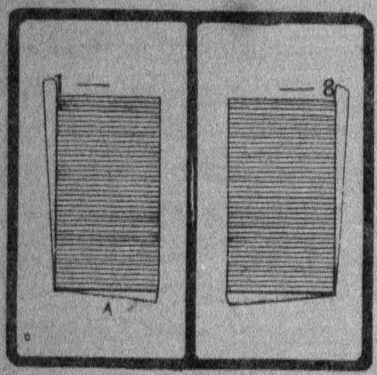
above on the stone so as to read in progressive order when the sheet is printed and folded. The chase is then placed, the furniture put between the pages, the foot-sticks and side-sticks placed, the cords untied, and the pages pressed close to the furniture. The furniture is then gauged, which is done as follows:—Take a sheet of the paper on which the work is to be printed; fold it by doubling till it contains eight leaves; measure the gutter, which is the furniture between pages 1 and 16, by placing the back of the sheet, as folded, against the left side of page 16: the edge of the sheet should overlap page 1 by about one pica em, when the gutter is correct. Next unfold the sheet once, just as a book is opened; place the back of the sheet against the left of page 13: the edge of the sheet should be flush with the left of page 1. Then refold the sheet; place the top of the sheet against the head line of page 8: the bottom of the sheet should overlap the foot of page 1 by about one pica em. (See illustrations on pages 54 and 55.) The overlapping is to allow for trimming the paper. Folio work of a limited number of sheets should be quired—that is, the sheets, when printed and ready for stitching, should lie one in another. Care must be taken that the furniture is of the proper length, as neglect of this precaution might endanger the safety of the forme. The pages in each forme must range exactly, and, to enable the pressman to back the sheet correctly, a register lead must be placed round the cross bars of the chase.

61. Impositors are held responsible for the correct imposition of formes, and the following illustrations are given for their guidance:—

Imposing.

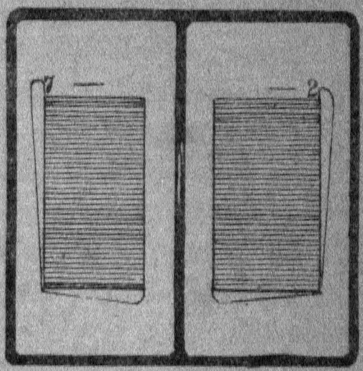
1. Sheet of Folio, Quired.

OUTER FORMES.

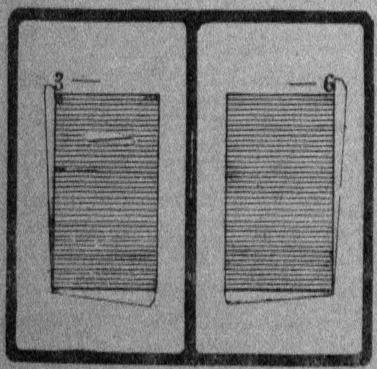


First Sheet.

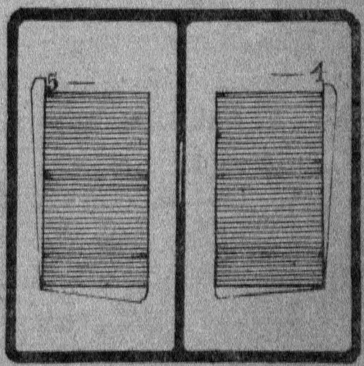
INNER FORMES.



First Sheet.



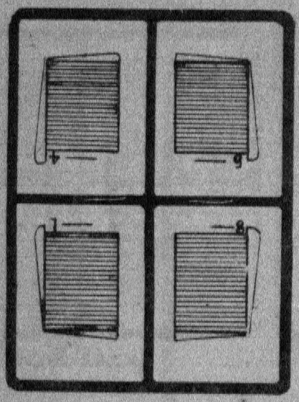
Second Sheet.



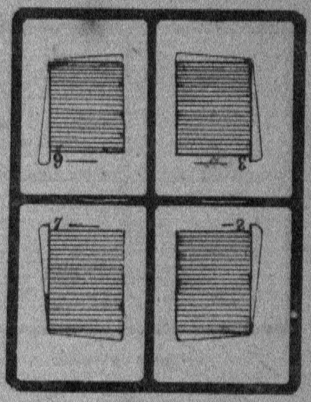
Second Sheet.

Imposing.

2. Sheet of Quarto.

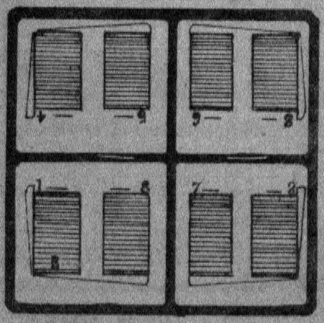


OUTER FORME.

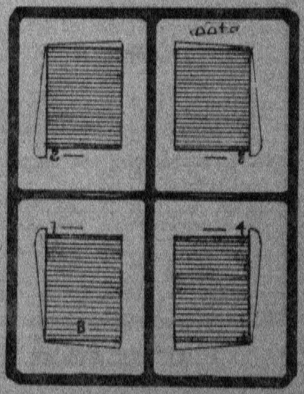


INNER FORME.

3. Half sheet of Octavo.

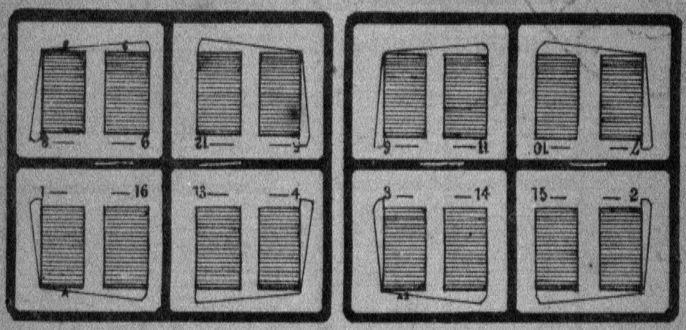


4. Half sheet of Quarto.



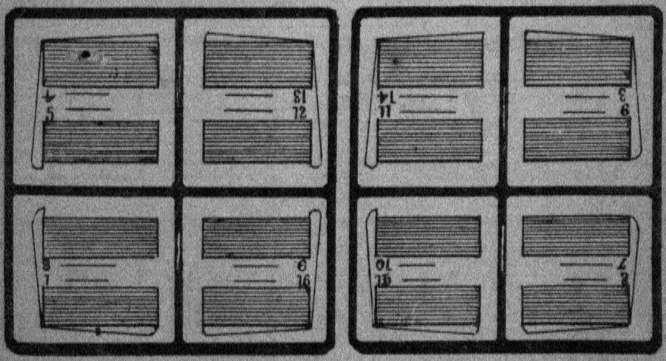
Imposing.

5. Sheet of Octavo.



Outer Forme. Inner Forme.

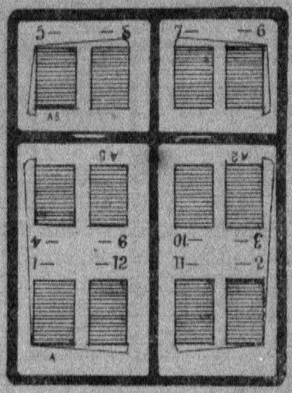
6. Sheet of Broad Octavo.



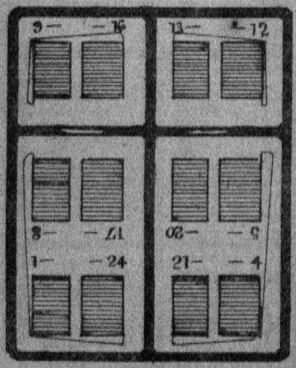
Outer Forme. Inner Forme.

Imposing.

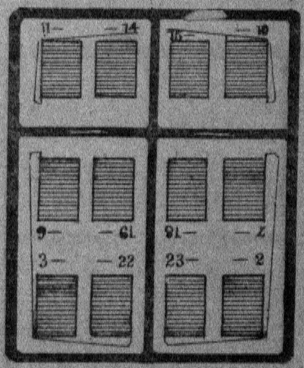
7. Half Sheet of Twelves, without cutting.



8. Sheet of Twelves, without cutting.

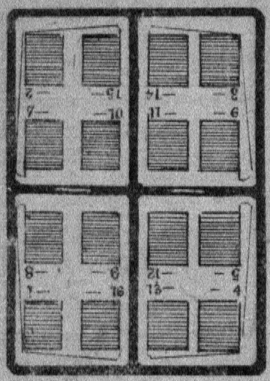


OUTER FORME

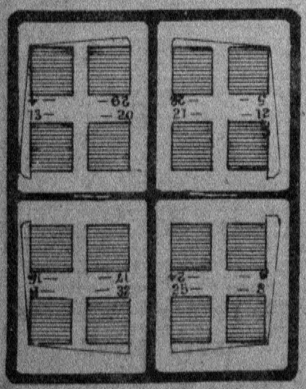


INNER FORME.

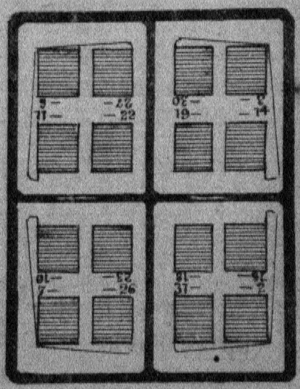
9. Half Sheet of Sixteens.



10. Sheet of Sixteens.

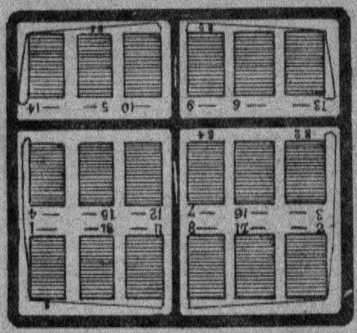


Outer Forme.

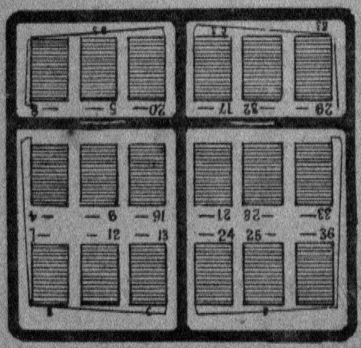


Inner Forme.

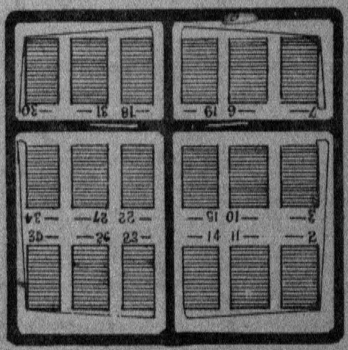
11. Half Sheet of Eighteens.



12. Sheet of Eighteens.



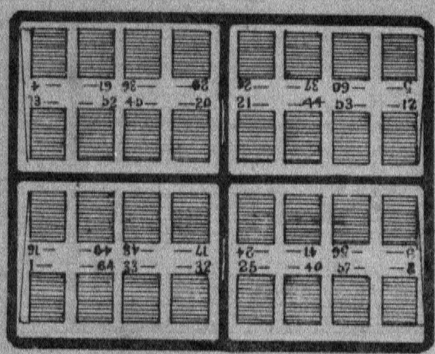
Outer Forme.



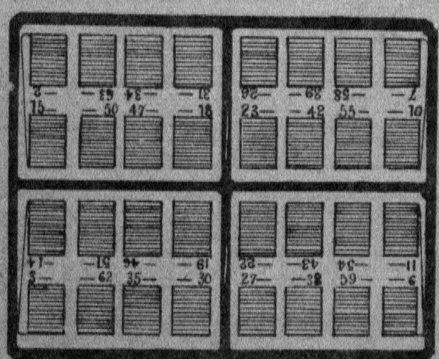
Inner Forme.

Imposing.

13. Sheet of Thirty-twos.



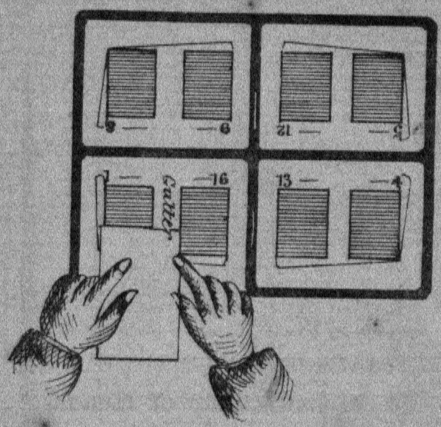
OUTER FORME.



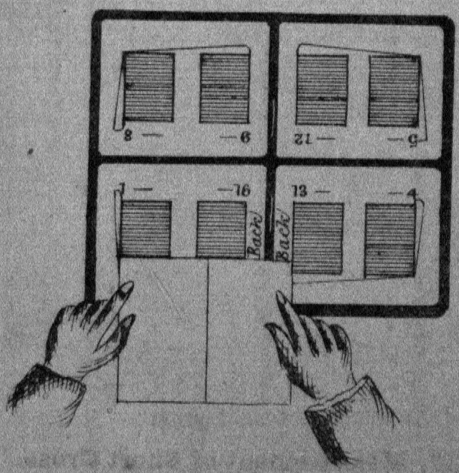
INNER FORME.

Imposing.

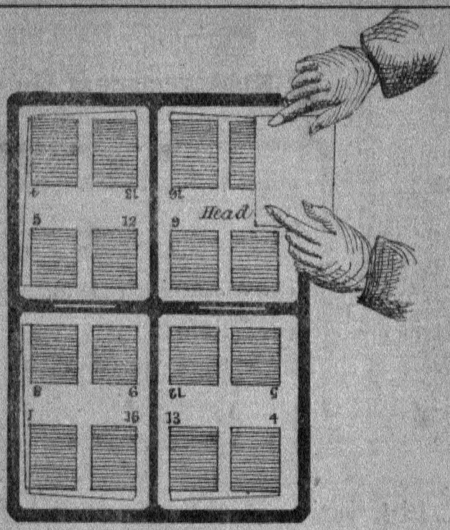
14. Measurement of Gutter.



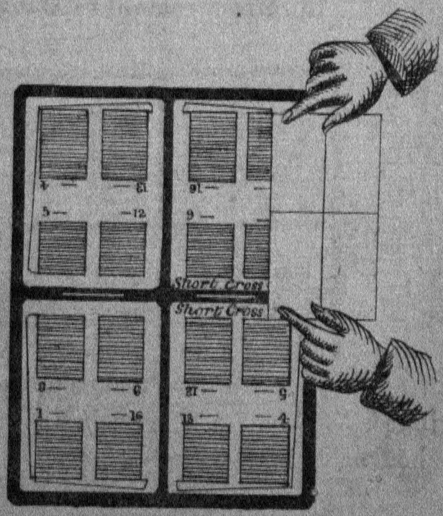
15. Measurement of Backs.



Imposing.



16. Measurement of Heads.



62. *Locking up.*—Impositors lock up all formes, except those corrected on time, which are locked up by the compositors who corrected the formes. In locking up a forme, the quoins should first be pushed as tightly as possible with the fingers, then gently driven along with the mallet and shooting-stick—those against the foot-stick first, and then those against the side-stick. The forme should be gently planed both before and after it is locked up. Before lifting a forme it should be raised a short distance to ascertain if any type is likely to drop out.

6. Distributing.

63. *Distributing* is the operation of returning the types to the boxes of the composing cases. Excellence in distributing consists in throwing each type into its proper box, and practice is necessary to do this accurately and expeditiously. Looking frequently at a word of only a few letters causes loss of time, but this may be obviated by the distributor possessing a knowledge of spelling. When a word is once seen and taken from the line, looking at it a second time should be avoided, if possible. Care must be taken to keep the spaces separate, as the middle and thin spaces frequently get mixed. Any pye which a case may contain affects the compositor injuriously by causing him to have foul proofs, which he must correct at his own cost; accurate distributing is therefore incumbent on every distributor. A distributor of average ability should distribute 5,000 ens per hour.

C—PROOF-READING.

1. General Observations.
2. Divisions of Words.
3. Capital Letters.
4. Punctuation.

1. General Observations.

64. *The Reader's Duties.*—It is desirable that a reader should have been previously brought up to the trade as a compositor. He should possess an extensive and varied knowledge, an accurate acquaintance with the art of typography, and, above all, a peculiar sharpness of eye, which, without losing the sense and correction of the whole, takes in at the same time each separate word and letter.

1. The reader should not, as a rule, read to his copy-holder, as this, practically speaking, is not to read by copy at all. He should not forget that any oversight remains in evidence against him, while it will not be remembered that he was hurried by the foreman and harassed by the clicker.

2. When a questionable word or passage is found in copy, the attention of the author should be directed to it, instead of reckless alterations of phraseology being made. All matters of style should be left to the author, and queries should be confined to matters of fact.

3. Particular attention should be paid by the proof-reader to the following imperfections: wrong fount letters; inverted letters, particularly the lower-case *s*; unequal spacing (regarding which see page 36); incorrect

making up of matter; misplacement of the reference marks; erroneous indenting; discrepancy in the system of spelling, punctuation, and capitals in the same work, &c.

4. In revising proofs, the lines in which corrections are marked should be read through. If a mark be left uncorrected, it will sometimes be found that a word close to the place has been altered in which no correction has been marked on the proof. Where "outs" or "doubles" occur, the overrunning should be followed out to its whole extent.

5. In reading for press the first thing to do is to check off each point of connection—signature, folio, head line, chapter, shoulder-note, text matter—with the preceding sheet, a copy of which should be filed by the reader. He should then see that the folios, headings, chapters, &c., follow each other in order.

2. Division of Words.

65. *Dividing Words.—1.* The best point to aim at is a division which represents the proper pronunciation of a word and at the same time exhibits its root. When a choice must be made between the two, the division which corresponds with the proper pronunciation should be adopted.

2. One or two letters of a word should not be allowed, if possible, to end or begin a line, and frequent divisions in successive lines should not be permitted.

3. The terminations *cean, cian, ceous, cious, cial*

tian, tion, tious, tial, geon, gian, geous, sion, and *sier* should not be divided.

3. Capital Letters.

66. *Capital Letters* should invariably be used in the following cases:—

1. The first word of a *direct* quotation. An *indirect* quotation may be introduced without the use of a capital.

2. Common nouns personified.

3. Every important word in a phrase used as a title.

4. Punctuation.

67. *The Comma.—1.* When a relative and its antecedent are separated from each other by one or more words, a comma should generally be inserted before the relative; as, "Think not *man* was made in vain, *who* has such an eternity reserved for him." When, however, the intervening word is an adverb, the comma is more commonly omitted; as, "It is *labour* only *which* gives a relish to pleasure."

2. When the subject of a sentence consists of several nominatives, or of a single nominative followed by an adjunct consisting of several words, a comma should be inserted before the following verb. Thus; "The golden sun, the planets, all the infinite host of heaven, *are shining* on the sad abodes of death." "The effect of this diffusion of splendid light, *was* to render the deep green more solemn."

3. A comma should be inserted before a conjunction expressed, if either of the words connected is followed

by an adjunct consisting of several words; as, "Intemperance destroys the vigour of our bodies, and the strength of our minds."

4. When different members of a compound sentence, with or without a conjunction expressed, contain distinct propositions, they are generally separated from each other by commas; as, "They shrunk from no dangers, and they feared no hardships."

5. When two phrases, the former ending and the other beginning with a noun, are joined by the conjunction *and*, *or*, or *nor*, they may be separated by a comma; as, "Integrity of *understanding*, and *nicety* of discernment, were not allotted in a less proportion to Dryden than to Pope." But if the first phrase is preceded by *both*, *either*, or *neither*, or the second by an article, or when the phrases are introduced into the body of a sentence necessarily requiring the insertion of commas, they should be left unpointed.

6. When the conjunction *or* stands between two nouns, or between a noun and a phrase, which are synonymous, or of which the latter is explanatory of the former, they may be separated by a comma from each other; as, "The dwelling of Norma was not inaptly compared to the eyry of the osprey, or *sea-eagle*." If the explanatory term is parenthetical, a comma should be placed after each of the terms; as, "Sin, or *moral evil*, should excite the greatest abhorrence."

7. In a series of three nouns preceded by an adjective qualifying only the first, the comma should be omitted

before the conjunction; as, "The characteristics of Mr. Mason's mind were *real* greatness, strength and sagacity."

8. A comma should be put after the last noun in a series, if it is not joined to the others by a conjunction; as, "Reputation, virtue, *happiness,* depend greatly on the choice of companions." When *and, or,* or *nor* occurs, the comma is unnecessary after the last noun.

9. When the last particular is one of several qualifying words, it must not be separated by a point from that portion of the sentence on which it acts; as, "Too much of our love is an instinctive, ungoverned, narrow, *selfish* feeling."

10. But a comma should be put after the last adjective or verb, not preceded by a conjunction, when it is separated by the other particulars of the series or by a verb from the word qualified; as, "There is something real, substantial, *immortal,* in Christian virtue."

11. Commas should not be used between words contrasted in pairs, and having prepositions or conjunctions between them; as, "Let elevation *without* turgidness, purity *without* primness, pathos *without* whining, characterize our style."

12. The participle *therefore* may be set off by commas when it is of a parenthetical nature, but should be left unpointed when it coalesces easily with the other parts of the sentence.

13. If the words *in order* are expressed before the infinitive and the conjunction *that,* the phrase is usually preceded by a comma.

14. When the words *when, where,* &c., have only a faint reference to time or place, or introduce an additional idea, they should be preceded by a comma; as, "Refrain not to speak, *when* by speaking you may be useful to others."

15. When two connected phrases are different in form, or in the number of words, their relation to the context is better seen when they are set off by commas; as, "Undue susceptibility, and the preponderance of mere feeling over thoughtfulness, may mislead us."

16. When an *indirect* quotation is preceded by a very brief clause, the comma is not required, unless the quotation consists of phrases which require to be punctuated.

17. When put in words, numbers are usually left unpointed.

68. *The Semicolon.—1.* When to a sentence complete in construction, a clause is added, with a conjunction, containing a reason, an explanation, an inference, or a contrast, it should generally be followed by a semicolon; as, "Avoid affectation; for it is a contemptible weakness."

2. When several successive clauses have a common connection with a preceding or following clause, a semicolon is generally inserted after each; as, "Children, as they gamboled on the beach; reapers, as they gathered the harvest; mowers, as they rested from using the scythe;—fell victims to the enemy."

69. *The Colon.—1.* When a quotation or an enumeration is introduced by such expressions as *in these words,*

the following, as follows, the quotation or enumeration may be preceded by a colon.

2. A colon should be put after a clause that is complete in itself, but is followed, without a conjunction, by some remark, reference, or illustration; as, "Avoid affectation: it is a contemptible weakness."

3. When the conjunction is omitted between clauses having only one verb, a semicolon is preferable; as, "The path of truth is a plain and safe path; that of falsehood, a perplexing maze."

4. A colon is used between two clauses, of which the former raises the expectation of the latter, or which express a comparison or a contrast one with the other, but without the use of a connecting word; as, "Anger is like rain: it breaks itself upon that on which it falls." "Cowards die many times: the valiant never taste of death."

5. When placed at the beginning of several sentences, to all of which they refer, the adverbial words *again, once more, in conclusion,* and the absolute phrases *to proceed, to conclude,* &c., may be distinguished by a colon; as, "*To sum up all:* my friends, the time is short. We are as guests in a strange land, who tarry but one night," &c.

6. In imprints a colon is inserted between the name of the place at which the book is published and the name of the publisher.

70. *The Period,* or *Full Point.—1.* This mark serves to indicate the end of a sentence which is assertive in

its nature, complete in itself, and independent of any following sentence.

2. A full point is admissible between two parts of a long sentence, though they are closely connected in sense by a particle, when either of them can be divided into more simple parts, separated by a semicolon.

3. It should also be used between two sentences joined by a conjunction, though their parts are incapable of being separated by a semicolon or a colon, if they do not depend one on the other in construction, and are not directly connected; as, "There are thoughts and images flashing across the mind in its highest moods, to which we give the name of inspiration. *But* whom do we honour with this title of the inspired poet?"

4. No point should be attached to the name of any articles or subject which is followed by leaders.

5. When the subjects of a chapter or section, specified in a heading, or in the contents or index of a book, are distinct, they should be separated by a period; but if closely connected in sense, they are marked by a minor point, according to the degree of connection subsisting between them; as, "Chap. II.—America.—Discovery and Settlement: Columbus, Americus, Cabot, &c.—Conquest of Mexico: Cortez, Pizarro," &c.

6. When the letters of the alphabet are employed as significant signs, or for the purpose of reference, they should not be followed by full points.

7. When numerals are written in characters of the alphabet, it is usual to insert periods after them.

Punctuation.

71. *Marks of Interrogation.—1.* An *interrogative* mark is placed at the termination of every question, whether it requires an answer, or, though in its nature assertive, is put, for the sake of emphasis, in an interrogative form.

2. This mark should not be used when it is only affirmed that a question has been asked, and the expression denoting inquiry is put in any other shape than that of a direct question; as, "I was asked if I would stop for dinner."

3. In some instances, however, a question may be assertive in its form, but interrogative in its sense; as, "You will stop for dinner?" In this case the note of interrogation should be used.

4. When several successive questions are connected in sense, but distinct and separate in construction, and can be read alone, each question should be distinguished by a mark of interrogation; as, "What is civilization? What does it consist in? By what is it excluded?"

5. When sentences which were affirmative when spoken or originally written are quoted in the form of a question, the interrogative point should be put *after* the marks of quotation; as, "'This passing crowd' is a phrase coined in the spirit of indifference. Yet, to the ordinary denizens of this world, what can be more interesting than 'the passing crowd'?"

72. *Marks of Exclamation.—1.* An *exclamative* mark is put after expressions denoting an ardent wish, admiration, or any other strong emotion; after interjections, words introduced as interjections, or clauses containing

them; and after terms or expressions in an address when emphatic.

2. Whenever interjections, or any other words indicative of deep emotion, are not meant to be significant in themselves, but to form part of a phrase or clause, the mark of exclamation should be put, not after each of these words, but only at the end of each expression; as, "All hail, ye patriots brave!" "Rouse, ye Romans!"

73. *Marks of Parenthesis.—1.* These marks enclose words which break the unity of the sentence into which they are thrown, and which may therefore be omitted without injury to its sense.

2. When a comma or any other point is necessary, where a parenthetical clause is thrown in, it should be placed *after the last* mark of parenthesis; as, "Pride, in some disguise or other (often a secret to the proud man himself), is the most ordinary spring of action among men."

3. Sometimes the parenthetical portion of a sentence is designed to express either inquiry or an emotion of wonder, delight, &c., when the main passage is in its nature affirmative. In cases of this kind, the point required, if there were no parenthesis, is to be inserted *before the first* mark under consideration, and that which belongs to the enclosed portion *before the second;* as, "While the Christian desires the approbation of his fellow-men, (and why should he not desire it?) he disdains to receive his good-will by dishonourable means."

74. *The Dash.—1.* This mark is used where a sentence breaks off abruptly, and the subject is changed; where the sense is suspended, and is continued after a short interruption; where a significant or long pause is required; and where there is an unexpected turn in the sentiment.

2. It is also used before a word or phrase repeated in an exclamatory or an emphatic manner; as, "Newton was a Christian;—Newton! whose science was truth," &c.

3. The dash should be inserted between a title and the subject-matter, and between the subject-matter and the authority from which it is taken, when they occur in the same paragraph.

4. It is used where a sentence is left unfinished; where there is a sudden turn; and where a significant pause is required. It is also often employed in place of the parenthesis.

75. *The Apostrophe* is used to denote the omission of one or more letters; as, *o'er, tho'*. It is likewise the sign of the possessive case, being used instead of a letter which was formerly inserted in its place; as, *man's* for *manes*, or *manis*.

2. The apostrophe should not be used before the *s* in *ours, yours, hers, its, theirs*.

76. *The Hyphen.—1.* If a prefix ends, and the word to which it is united begins, with a vowel—both vowels being separately pronounced—they should be connected with a hyphen.

2. A derivative which might be mistaken for a

word with the same letters, but a different meaning, should be distinguished from it by the insertion of a hyphen between its parts.

77. *Marks of Quotation.—1.* These are employed to show that the words of an author or a speaker are quoted.

2. They should not be used where the matter referred to is not given in the exact words of the author.

3. When one quotation is introduced into another the included one should be preceded by a single inverted comma, and closed by a single apostrophe.

4. Double marks should be used before and after quotations inserted in that which has been introduced into an extract.

5. When an extract is composed of successive paragraphs, each is commenced with inverted commas; but the apostrophes are not used till the quotation finally terminates.

D—RATES.

(a)—Composition.

1. Method of Computing Work.	3. Job Work.
2. Book Work.	4. Form Work.

1. Method of Computing Work.

78. *Casting up.*—"Casting up" is the process by which matter is measured, the number of ens it contains arrived at, and its value in money ascertained. This is done by multiplying the number of "ems" in the length of a page by the number of "ens" in the width. An odd

en in the length of a page counts an em, and a thick space in the width is reckoned an en. The number of ens contained in a page being thus ascertained,a fixed rate per 1000 is charged. Of course, the smaller the type the greater the number of ens, and consequently the higher the charge per page. The letters in a fount of type are of various thicknesses, but in ordinary composition they will average nearly a uniform thickness of an en quadrat for each letter—those that are thicker than an en making up for the thinner ones. In fixing the price per forme, 500 ens and upwards are reckoned 1000, and less than 500 are not taken into account. To compensate for loss of pay for Sundays and holidays, the rates are calculated for 25 working days per mensem, and are as follow :—

2. Book Work.	*Per* 1000 *ens.*		
	Rs.	*a.*	*p.*
Common Matter, leaded or solid	0	3	0
Tabular Matter, 3 or 4 columns	0	3	3
Scheme Matter, 5 columns and upwards .	0	3	6

Very open tabular and scheme work is paid for at half or three-fourths of the above rates, according to the blank space.

To illustrate the method by which the value of composition is arrived at, it will suffice to give the cast up of a sheet of this book. The measurement in pica is 34 ems

long by 20 ems broad, but in small pica, the fount used, it is

39 ems, or lines, long,
46 ens, or 23 ems, broad.

1794 ens per page.
16 pages per sheet.

28704, say 29,000 ens per sheet of 16 pages, at R.0-3-0 per 1000 ens = R.5-7-0 per sheet ÷ 16 = R.0-5-5 per page.

Tabular and scheme matter are cast up on the same principle at an increased, and form work at a decreased, rate per 1000 ens. The following table shows the number of ens from english to nonpareil contained in formes of different sizes, and the rates per forme and per page. "Extra" charges are detailed further on.

Statement showing the Measures of Pages, the Number of Ens from English to Nonpareil contained in Formes of r*

MEASURE.	Description of Matter.	ENGLISH. No. of ens in a Forme.	ENGLISH. Amount paid per Forme.	ENGLISH. Amount paid per Page.	PICA. No. of ens in a Forme.	PICA. Amount paid per Forme.	PICA. Amount paid per Page.	SMALL PICA. No. of ens in a Forme.	SMALL PICA. Amount paid per Forme.	SMALL PICA. Amount paid per Page.	LONG PRIMER. No. of ens in a Forme.	LONG PRIMER. Amount paid per Forme.	LONG PRIMER. Amount paid per Page.	BOURGI No. of ens in a Forme.	BOURGI Amoun Forme.
			Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.		Rs. a.
Double Flcp. 16mo . . 18×30	Common ...	13,824	2 10 0	0 2 7	17,280	3 3 0	0 3 2	23,520	4 8 0	0 4 6	27,988	5 4 0	0 5 3	34,944	6 9
	Tabular ...	...	2 13 6	0 2 10	...	3 7 3	0 3 5	...	4 14 0	0 4 10	...	5 11 0	0 5 8	...	7 1
	Scheme ...	...	3 1 0	0 3 1	...	3 11 6	0 3 8	...	5 4 0	0 5 3	...	6 2 0	0 6 1	...	7 10
Double Flcp. 16mo . . 20×32	Common ...	16,704	3 3 0	0 3 2	20,480	3 12 0	0 3 9	27,232	5 1 0	0 5 0	32,000	6 0 0	0 6 0	40,320	7 8
	Tabular ...	...	3 7 3	0 3 5	...	4 1 0	0 4 0	...	5 7 9	0 5 6	...	6 8 0	0 6 6	...	8 2
	Scheme ...	...	3 11 6	0 3 9	...	4 6 0	0 4 4	...	5 14 6	0 5 11	...	7 0 0	0 7 0	...	8 12
Royal 12mo . . . . . 22×38	Common ...	16,320	3 0 0	0 4 0	20,064	3 12 0	0 5 0	27,456	5 1 0	0 6 9	31,684	6 0 0	0 8 0	40,176	7 8
	Tabular ...	...	3 4 0	0 4 4	...	4 1 0	0 5 5	...	5 7 9	0 7 3	...	6 8 0	0 8 8	...	8 2
	Scheme ...	...	3 8 0	0 4 8	...	4 6 0	0 5 10	...	5 14 6	0 7 10	...	7 0 0	0 9 4	...	8 12
Royal 12mo . . . . . 22×40	Common ...	17,280	3 3 0	0 4 3	21,120	3 15 0	0 5 3	28,704	5 7 0	0 7 3	33,600	6 6 0	0 8 6	42,408	7 14
	Tabular ...	...	3 7 3	0 4 7	...	4 4 3	0 5 8	...	5 14 3	0 7 10	...	6 14 8	0 9 2	...	8 8
	Scheme ...	...	3 11 6	0 4 11	...	4 9 6	0 6 1	...	6 5 6	0 8 5	...	7 7 0	0 9 11	...	9 3
Demy 8vo . . . . . 24×42	Common ...	13,376	2 7 0	0 4 10	16,128	3 0 0	0 6 0	21,952	4 2 0	0 8 3	24,960	4 11 0	0 9 4	32,096	6 0
	Tabular ...	...	2 10 3	0 5 3	...	3 4 0	0 6 6	...	4 7 6	0 8 11	...	5 1 3	0 10 1	...	6 8
	Scheme ...	...	2 13 6	0 5 8	...	3 8 0	0 7 0	...	4 13 0	0 9 7	...	5 7 6	0 10 11	...	7 0
Royal 8vo . . . . . 26×46	Common ...	15,088	2 13 0	0 5 7	19,136	3 9 0	0 7 1	25,440	4 11 0	0 9 4	30,096	5 10 0	0 11 3	38,480	7 2
	Tabular ...	...	3 0 9	0 6 1	...	3 13 9	0 7 8	...	5 1 3	0 10 2	...	6 0 0	0 12 2	...	7 11
	Scheme ...	...	3 4 6	0 6 7	...	4 2 6	0 8 3	...	5 7 6	0 10 11	...	6 12 0	0 13 1	...	8 5
Super-royal 8vo . . 30×48	Common ...	18,576	3 9 0	0 7 1	23,040	4 5 0	0 8 7	31,360	5 13 0	0 11 7	36,480	6 12 0	0 13 6	45,696	8 10
	Tabular ...	...	3 13 9	0 7 8	...	4 10 9	0 9 4	...	6 4 9	0 12 7	...	7 5 0	0 14 7	...	9 5
	Scheme ...	...	4 2 6	0 8 4	...	5 0 6	0 10 0	...	6 12 6	0 13 6	...	7 14 0	0 15 9	...	10 1
Demy 4to . . . . . 34×51	Common ...	11,408	2 1 0	0 8 3	13,872	2 10 0	0 10 6	18,408	3 6 0	0 13 6	21,504	4 2 0	1 0 6	27,648	5 4
	Tabular ...	...	2 3 9	0 8 11	...	2 13 6	0 11 4	...	3 10 6	0 14 7	...	4 7 6	1 1 10	...	5 11
	Scheme ...	...	2 6 6	0 9 7	...	3 1 0	0 12 3	...	3 15 0	0 15 9	...	4 13 0	1 3 3	...	6 2
Demy 4to . . . . . 40×52	Common ...	13,536	2 10 0	0 10 6	16,640	3 3 0	0 12 9	22,080	4 2 0	1 0 6	26,000	4 14 0	1 3 6	32,704	6 3
	Tabular ...	...	2 13 6	0 11 4	...	3 7 3	0 13 10	...	4 7 6	1 1 10	...	5 4 6	1 5 1	...	6 11
	Scheme ...	...	3 1 0	0 12 3	...	3 11 6	0 14 10	...	4 13 0	1 3 3	...	5 11 0	1 6 9	...	7 3
Royal 4to . . . . . 45×55	Common ...	15,680	3 0 0	0 12 0	19,800	3 12 0	0 15 0	26,624	5 1 0	1 4 3	30,912	5 13 0	1 7 3	39,936	7 8
	Tabular ...	...	3 4 0	0 13 0	...	4 1 0	1 0 3	...	5 7 9	1 5 11	...	6 4 0	1 9 2	...	8 2
	Scheme ...	...	3 8 0	0 14 0	...	4 6 0	1 1 9	...	5 14 6	1 7 7	...	6 12 6	1 11 1	...	8 12
Double Foolscap . . 18×65	Common ...	7,424	1 5 0	0 5 3	9,360	1 11 0	0 6 0	12,600	2 7 0	0 9 9	14,904	2 13 0	0 11 3	19,136	3 9
	Tabular ...	...	1 6 9	0 5 8	...	1 13 3	0 7 3	...	2 10 3	0 10 6	...	3 0 9	0 12 2	...	3 13
	Scheme ...	...	1 8 6	0 6 2	...	1 15 6	0 7 10	...	2 13 6	0 11 4	...	3 4 6	0 13 1	...	4 2
Double Foolscap . . 26×59	Common ...	9,752	1 14 0	0 7 6	12,272	2 4 0	0 9 0	16,320	3 0 0	0 12 0	19,536	3 12 0	0 15 0	24,568	4 11
	Tabular ...	...	2 0 6	0 8 2	...	2 7 0	0 9 9	...	3 4 0	0 13 0	...	4 1 0	1 0 3	...	5 1
	Scheme ...	...	2 3 0	0 8 9	...	2 10 0	0 10 6	...	3 8 0	0 14 0	...	4 6 0	1 1 6	...	5 7
Double Foolscap . . 34×65	Common ...	14,384	2 10 0	0 10 6	17,680	3 6 0	0 13 6	23,400	4 5 0	1 1 3	27,216	5 1 0	1 4 3	35,328	6 9
	Tabular ...	...	2 13 6	0 11 4	...	3 10 6	0 14 7	...	4 10 9	1 2 8	...	5 7 9	1 5 11	...	7 1
	Scheme ...	...	3 1 0	0 12 3	...	3 15 0	0 15 9	...	5 0 6	1 4 1	...	5 14 6	1 7 7	...	7 10
Double Foolscap . . 40×68	Common ...	17,568	3 6 0	0 13 6	21,760	4 2 0	1 0 6	29,072	5 7 0	1 5 9	34,000	6 6 0	1 9 6	43,008	8 1
	Tabular ...	...	3 10 6	0 14 7	...	4 7 6	1 1 10	...	5 14 3	1 7 6	...	6 14 6	1 11 7	...	8 11
	Scheme ...	...	3 15 0	0 15 9	...	4 13 0	1 3 3	...	6 5 6	1 9 4	...	7 7 0	1 13 9	...	9 6
Double Foolscap . . 44×72	Common ...	20,800	3 15 0	0 15 9	25,344	4 11 0	1 2 9	33,864	6 6 0	1 9 6	39,600	8 2 0	2 0 6	50,592	9 9
	Tabular ...	...	4 4 3	1 1 1	...	5 1 3	1 4 4	...	6 14 6	1 11 7	...	8 12 0	2 3 0	...	10 5
	Scheme ...	...	4 9 6	1 2 4	...	5 7 6	1 5 10	...	7 7 0	1 13 9	...			...	11

* In fixing the price per forme, 500 ens and upwards are reckoned 1000, and less than 500 are

Rates for Book Work.

79. *Calculating Work.*—Each sheet is paid for at the rate for the text; the additional cost of pages composed in smaller type, or in different descriptions of matter than the text, or of those set in a broader measure than the work, is paid for as "extra."

80. *Larger Type.*—When small portions of a work are set on larger type than the text, they are paid for at the same rate as the text.

81. *Forms interspersed throughout book work:*—

(a) A blank form making a full page or portion of a page is paid for at the rate for the text.

(b) Forms composed of numerous narrow blank columns are paid for at the rates for tabular matter of the same size of type as the text.

(c) Forms of three columns and upwards, filled in with figures or descriptive matter, are paid for at the rates for tabular or scheme matter of the size of type used.

(d) Blank forms occurring in distinct portions of a work, and as appendices, are paid for as form work.

(e) When blank forms occur at intervals, as in Budget estimates, catalogues, and work of a similar nature, they are paid for at the rates for form work.

Extras.—Column heads are paid for at 3 pies each, and 1 pie is allowed for every additional line above three. Extra is not paid for blank column heads. One or two columns containing matter set on smaller type than pica are paid 1 pie per line per column up to the difference

in the value of a pica page and that of one composed in smaller type. Side and foot notes are paid for as in paragraphs 82 and 84.

82. *Side Notes* are paid for at 2 pies per line.

83. *Cut-in Notes,* 16 pica ems and under, are paid for at 1 pie extra per line; 17 ems and upwards, 2 pies extra per line; and 2 pies extra for each justification.

84. *Foot Notes, Extracts,* and *Interspersed Common Matter,* composed in smaller type than the text, are paid for extra per line up to the difference in the price of a page of text and that of smaller type, at the following rates:—

33 ems broad and under	2 pies.
34 ems broad and upwards	3 „

85. *Interspersed Tabular and Scheme Matter,* forming portions of a page, are paid for according to the space occupied—*i. e.,* $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, and $\frac{7}{8}$; tables of an intermediate size are paid for at the rate for the next larger size. Tables set on a narrower measure than the full breadth of the page, are paid for as if set on the full breadth.

86. *Column Heads* are paid for at 3 pies each extra, and 1 pie additional for every line above three. Extra is not paid for blank column heads.

For standing column heads, as in the case of indexes and contents of Proceedings volumes, no extra charge is allowed.

87. *Small type in Tabular and Scheme Matter.*—When smaller type than that on which the body of the table is set is used in the "Remarks" or other column, 1 pie per line extra is paid.

88. *Justifications* are paid for at 2 pies each.

89. *Extras* are calculated on each page.

Rates for Book Work.

90. *Covers, Bastard Titles,* and *Titles* are composed by clickers, and are reckoned as pages of text—except in tabular and scheme work, when they are reckoned as pages of common matter of the type in which the work is composed.

91. *Dockets.*—*Current* dockets are paid for at an all-round rate of 3 annas each; *Collection* dockets at 3 annas per page, and 2 pies per line extra for smaller type than pica, up to the difference in the value of the pages.

Financial Department *Collection* dockets are paid for at the rate for *Current* dockets.

92. *Keep-withs.*—The composition of "keep-withs" from manuscript is paid 20 per cent. extra on the rates.

93. *Composition from Manuscript which is very difficult to read* is paid 20 per cent. extra on the rates.

94. *Foreign Languages.*—Matter composed in a foreign language in the Roman character is paid for at 3 pies extra per 1000 ens.

95. *Making up*—

(a) *Common Matter.*—The following rates per page are paid :—

Sizes.	Foolscap and smaller.		Demy and Medium.		Royal and Super Royal.		Imperial.	
	Without side notes.	With side notes.	Without side notes.	With side notes.	Without side notes.	With side notes.	Without side notes.	With side notes.
	a. p.	a. p.	a. p.	a. p.	a. p.	a. p.	a. p.	a. p.
Folio & 4to	0 6	0 9	0 7	1 0	0 9	1 3	1 0	1 6
8vo & smaller	0 3	0 6	0 5	0 9	0 6	1 0	0 9	1 3

Making up includes composing head and

signature lines, tying up the page, and carrying it to the stone. When blank exceeds three lines, three lines are allowed for making up and the remainder is credited to the clicker.

(b) *Tabular and Scheme Matter.*—As a rule, the compositor completes his work. Where this is inconvenient, the time occupied in making up is deducted from the value of the work and credited to the maker-up; but in no case must the cast-up price be exceeded.

(c) *Standing Matter*—

Common Matter is paid for as in clause (*a*). Scheme and Tabular Matter is paid for on time.

96. *Matter Overrun* from a small to a larger size, or *vice versâ,* is paid one-third the measure to which it is overrun. The making up is paid for as in paragraph 95.

97. *Standing Heads and Signature Lines of Despatches to the Secretary of State and Departmental Current Letters, &c.*—When placed by the compositor with the lines set, three lines for the heading and three for the ending are credited to his account,—the blank, if any, and the remaining standing lines, being credited to the clicker.

98. *Alterations from Original Copy* are made on time, which is paid for as in the table on page 10. Small quantities of matter deleted in authors' or press proofs are distributed on time by those who correct the proofs. Large quantities of cancelled matter are made over to the senior distributor for distribution. A compositor employed on alterations during a morning and day

is paid for ten hours; if during a whole day, seven hours. Less than half an hour occupied on time is reckoned as half an hour.

99. *Work partly standing and partly composed* is paid for as alterations.

100. *Time occupied in Correcting Final Proofs* which have not been sent out is paid for at the rates for alterations.

101. *Proofs of Absentees.*—Absentees pay for the correcting of their proofs at the rate per hour of the class to which the compositor so employed may belong.

102. *Careless Correcting.*—Compositors are liable to a fine of 3 pies for every mark in their proofs not corrected.

103. *Acting Allowance.*—A compositor officiating for a clicker is paid by time, at the rate for his class, with an acting allowance of 20 per cent. of the monthly salary of the absentee; the total amount should not, however, exceed the monthly salary of the substantive appointment. Overtime is paid for at the rate of the salary of the clicker. A compositor does not receive any acting allowance for officiating for a period less than three working days, but if his services are required beyond that time, the acting allowance reckons from the date he takes charge of the section.

104. *Promotion.*—On the occurrence of a vacancy, in order to obtain promotion to a higher class, a compositor must show that his average earnings for the preceding twelve months are not less, in proportion to the number of days he worked during that period, than the

minimum of the class to which he is to be promoted, reckoning 25 days of 7 hours as the number of working days in each month, and the overtime of one morning or night as 3 hours. This is ascertained as follows: Multiply the total earnings by 25 and divide the product by the number of days worked during the year.

105. *Apprentices*—

for the first 3 months' service their earnings are paid to the compositors who undertake to teach them;

for the second 3 months' service half their earnings is paid to the teachers and half is credited to the clickers;

after 6 months' service they receive half their earnings, the remainder being credited to the clicker;

after 1 year's service they receive two-thirds of their earnings, the remainder being credited to the clicker;

after 1½ years' service they receive three-fourths of their earnings, the remainder being credited to the clicker;

after 2 years' service they are paid according to rates.

3. Job Work.

106. *Casting up.*—Jobs set on larger type than English are cast up as English. In casting up, less than 250 ens are not reckoned; 250 ens and up to 500 ens are paid for as half a thousand; above 500 ens and up to 1,000 ens are paid for as a thousand.

Rates for Form Work.

107. *Circulars* and *Letter Forms under 2 pages* and *Docket Memo. Forms* are paid for at the rate for tabular matter. *Circulars* and *Letter Forms above 2 pages* are paid for at the rates for common matter.

108. *Letter Headings* and *Docket Forms* are paid for at an all-round rate of 4 annas each, and 3 pies extra per line for marginal matter.

109. *Envelopes* and *Addresses* are paid for at an all-round rate of 4 annas each.

110. *Labels in sheets* are cast up as pica at book-work rates. The lowest payment for a single label is 2 annas.

111. *Cheque Forms* are paid for at the rate for scheme matter, and are cast up by the fount most used, if not larger than pica.

112. Paragraphs 98 to 105 apply also to job work.

113. Jobs not coming under these rules should be submitted for orders.

4. Form Work.

114. Form work is divided into two classes, and is cast up as pica with extra for column heads and filled-in matter.

Class I consists of blank forms with headings, irrespective of the number of forms contained in a page, and is paid 1 anna and 3 pies per 1000 pica ens, with extra for column heads as in paragraph 116.

Class II (a) consists of forms with lines placed at intervals, and is cast up at the rates for Class I, 1 pie per line extra per column being paid for the matter.

(b) consists of forms partially filled in with close matter, the blank columns being cast up at the rate for Class I, and the space occupied with filled-in matter cast up at book-work rates.

[In forms where the matter extends across the page, and is not divided into columns, and the blank exceeds one-fourth of the form, half is credited to the compositor for making it up, and half to the clicker.]

115. *Casting up.*—In casting up forms, less than 250 ens are not reckoned; 250 ens and up to 500 ens are paid for as half a thousand; above 500 ens and up to 1,000 ens are paid for as a thousand.

116. *Column Heads* are paid for at 3 pies each extra, and 1 pie additional for every line above three. Extra is not paid for blank heads.

117. *Titles.*—Sizes up to foolscap are paid for at 6 annas each, and an advance of 1 anna on each size above foolscap.

118. *Dockets.*—Skeleton dockets up to foolscap size are paid for at 3 annas each, and an advance of 6 pies on each size larger than foolscap. Dockets containing matter are paid for at the rates for skeleton dockets, with the cast up of the extra matter at book-work rates.

119. *Headings for Machine-ruled Forms* are composed on time.

120. *Rules for Faint Lines* are composed on time, the hours so occupied being marked by clickers on the proofs.

121. Paragraphs 98 to 105 apply also to form work.

122. Forms not coming under these rules should be submitted for orders.

(b)—Distribution.

123. The rates for distribution are fixed on the same principle as those for composition, *i. e.*, by the process of "casting up." The work, though requiring care, is purely mechanical, and is much more quickly executed than composition; it also requires less training and intelligence; consequently the rates per 1000 ens are lower. The different descriptions of matter are rated per 1000 ens as under:—

Common Matter, *Tabular Matter*, *Scheme Matter*,	cast up according to founts	2 pies.
Form Matter, Class I,	cast up as pica . .	0½ pie.
" " " II,		1 "

124. *Blank Forms making portions of pages of book work* are paid for at the same rate as the body of the work. Full pages of blank forms occurring in book work are paid for at the rates for form work.

125. *Side* and *Cut-in Notes* are paid extra as under:—

1 to 6 lines	1 pie.
Every additional 6 lines or less . . .	1 "

126. *Foot Notes, Interspersed Common, Tabular,* and *Scheme Matter, in smaller type than the body of the work,* are paid extra as under:—

1 to 4 lines	1 pie.
Every additional 4 lines or less, up to the difference in the value of the pages	1 "

Rates for Distribution.

127. *Column Heads set in smaller type than the table or form* are paid extra as under:—

1 to 6 lines	1 pie.
Every additional 6 lines or less . .	1 „

No extra is paid for column heads of the same type as the table or form.

128. *Extras* are calculated on each page.

129. *Work done on time* is paid for per hour as in the table on page 10.

130. *Covers, Bastard Titles, Title Pages,* and *Job Work* are distributed on time.

131. *Dockets* are cast up as form work; if the matter exceeds one-fourth of the docket, it is cast up as common matter.

132. *Standing Matter,* such as column heads of index to proceedings, signature and designation lines of current letters, &c., must be marked on the file by the clickers and made over to them by the distributors.

133. *Furniture, Chases, Brass Rules,* and *material other than type and quotations,* must be made over by the distributor to the person in charge of the store-room.

134. *Careless Distribution.*—Distributors will be fined for distributing carelessly, and, if frequently brought to notice, will be dismissed.

135. *Caution to Distributors.*—Distributors wilfully laying aside matter made over to them for distribution, and which they should have distributed, will be fined or dismissed.

E—Accounts.

1. General Rules. | 2. Compositors.
3. Distributors.

1. General Rules.

136. *Closing Monthly Accounts.*—Bill books are closed on the evening of the 25th day of the month. If the 25th should fall on a Sunday or close holiday, the accounts are closed on the evening of the 24th.

137. *Complaints.*—Employés should check their own accounts. If a complainant can shew in what item his account is wrong, a reference is at once made to the files and check book. If a complaint is made of a deficiency in the total amount of a bill, the files, check book, and bill book are made over to the complainant to find out the alleged mistake; or the clerk may check the items, and if there is a mistake, the deficiency will be made good; but if the account is correct, the complainant will pay for the time occupied by the clerk in examining it.

2. Compositors.

138. Four forms are used for compositors' accounts, *viz.*:—

Form 70. Case, 1. The Compositors' Check Book, in which are entered the details of each sheet.

1, Date; 2, Press register number; 3, Name of work; 4, Size and description of work; 5, Compositors' names; 6, Details of work: *a*, Pages and lines; *b*, Extras; *c*, Making up; *d*, Alterations; *e*, Amount; 7, Computer's signature.

Compositors' Accounts.

FORM 71. CASE, 2. MEMO. OF ALTERATIONS CHARGEABLE TO DEPARTMENTS, which is a slip for the entry of the number of hours occupied in making alterations from original copy, and in correcting proofs until the work is finally passed to press.

1, Date; 2, Press register number; 3, Department chargeable; 4, Name of work; 5, Number of section; 6, Compositor's name and class; 7, Number of pages corrected; 8, Number of hours charged; 9, Amount; 10, Signatures of Clicker, Foreman, and Deputy Superintendent.

FORM 72. CASE, 3. MEMO. OF CORRECTIONS CHARGEABLE TO THE PRESS which is a slip for the entry of the number of hours occupied in correcting press proofs which are not sent out for approval.

1, Date; 2, Number of section; 3, Name and class of compositor; 4, How employed; 5, Number of hours charged; 6, Amount; 7, Signatures of Clicker, Foreman, and Deputy Superintendent.

FORM 73. CASE, 4. THE CASE BILL BOOK, in which are entered the titles and quantities of work charged, with the sums credited to each compositor for the month.

1, Month and year; 2, Serial number; 3, Date; 4, Press register number; 5, Description of work; 6, Names; 7, Amount; 8, Total; 9, Signatures of Computers, Accountant, Deputy Superintendent, and Superintendent.

139. *The Compositors' Check Book.*—Proofs for writing compositors' names and the date of composition at the beginning of each "take" are pulled after the second proof is corrected. The clicker writes his initials and the date at the end of each sheet, and is held responsible that each compositor's matter and the date of

composition are correctly marked. The proofs are then forwarded to the clerk, who enters in the check book the number of lines and amount of extras opposite the names of those who have matter in the sheet. The number of appearing lines only are marked to the compositor, blanks being marked to the clicker [but see para. 95, clause (*a*)]. Extra charges are calculated on each page. Sheets, with the amount of extra charges, if any, are totaled separately. Before entering the details of a work, or portion of a work, in the bill book, an abstract shewing the quantity and value of each man's work is made in the check book.

140. *Memo. of Alterations chargeable to Departments.*—If made before the detail is entered in the bill book, alterations are charged at the same time as the sheets; otherwise the charge is entered in the bill book for the month in which they are made. After entering the name of the work and its signatures in the memorandum, the clicker enters the correctors' names, the number of pages corrected, and the time occupied. The time occupied by the clicker, either in correcting or otherwise forwarding work, will also be credited to him in the memorandum, which is then totaled, initialed, numbered, dated, and made over to the clerk, who fills in the sum each man is entitled to, according to his class, and credits the same either in the check book or in the case bill book.

141. *Memo. of Corrections chargeable to the Press.*—The entries in this form must be kept distinct from those in Form B, and all charges debitable to the press must be carefully excluded from the charging file submitted to the despatcher. The time occupied in cor-

recting final revises, &c., is entered in this form and signed for by the clicker, who checks the time on the return of the proof by the corrector.

142. *Checking Work done on Time.*—The clicker will be held primarily responsible that the proper amount of work is done for the time charged, but the foreman must also check the entries in the time memo. slips (Forms Nos. 71 and 72) before passing them on for the Deputy Superintendent's inspection.

143. *The Case Bill Book.*—As each job is completed, the details are entered at once in the case bill book from the check book; but when a work is unfinished at the close of a month, the sheets completed are charged,—subsequent sheets and alterations being charged monthly until the work is completed. The work of compositors assisting a section other than their own is charged in the bill book of the section for which the work is done; the sums thus entered are immediately transferred to the credit of the men in the bill book of the section to which they belong, and deducted at the close of the month from the total of the bill book of the section for which the work is done. At the end of the month, the sums credited to each compositor and the entries against each work are totaled, and the bill book, signed by the computer, is made over to the accountant for check.

144. *Charging Matter to Account.*—When a compositor's matter, exceeding Rs. 5 in value, is corrected but not made up at the close of a month, a sum of at least 25 per cent. less than its estimated value may be charged to account, adjustment being made in the following month's accounts.

3. Distributors.

145. Three forms are used for distributors' accounts, *viz.*:—

FORM 74. Distribution, 1. THE DISTRIBUTORS' CHECK BOOK, in which are entered daily the title of each work, the folios, the number of ens, with extras, distributed by each man, and the number of hours employed on time.

1, Month and year; 2, Names; 3, Date; 4, Name of work; 5, Folio; 6, Number of ens, common, tabular, and scheme matter; 7, Extras; 8, Form matter: *a*, Class I; *b*, Class II; *c*, Extras; 9, Number of hours on time; 10, Total amount; 11, Computer's signature.

FORM 75. Distribution, 2. THE DISTRIBUTORS' TIME MEMO., which is a slip for the entry of the number of hours occupied on work other than distributing.

1, Date; 2, Names; 3, How employed; 4, Number of hours charged; 5, Amount; 6, Signatures of Clicker, senior Distributor, and Deputy Superintendent.

FORM 76. Distribution, 3. THE DISTRIBUTORS' BILL BOOK, in which are entered the names of the distributors, and the quantity and value of their work during the month.

1, Month and year; 2, Names; 3, Number of ens, common, tabular, and scheme matter; 4, Extras; 5, Form matter: *a*, Class I; *b*, Class II; *c*, Extras; 6, Number of hours on time; 7, Total amount; 8, Signatures of Computer, Accountant, Deputy Superintendent, and Superintendent.

Distributors' Accounts.

146. *The Distributors' Check Book.*—A proof of all matter for distribution is made over by clickers to the senior distributor, who writes on the proof the name of the man to whom he gives the matter for distribution, and the date. When the work is finished, the senior distributor writes his initials and the date on the proof, and makes it over to the clerk. The clerk writes the details on the proof, enters the number of ens in the columns for the different descriptions of matter, with the amount of extra, and then files separately each man's proof, which he keeps as a voucher. At the end of the month the several columns are totaled, the number of ens are charged at the rates for the different descriptions of matter, the extras are added, and the total amount entered opposite each man's name in the distributors' bill book. In totaling the "ens" columns, 500 ens and upwards are reckoned 1000, and less than 500 are not taken into account.

147. *The Distributors' Time Memo.*—The time occupied by a distributor in distributing job work and titling letter, or in collecting standing matter, supplying sorts to sections, or clearing pye, is entered in this slip, which is signed by the senior distributor and countersigned by the clicker.

148. *The Distributors' Bill Book.*—At the close of the month each man's work and its value are copied from the totals of the check book and entered in the bill book, the columns are totaled, and the book, signed by the computer, is made over to the accountant for check.

DIVISION III.—PRESS WORK.

A—PRESS WORK. | B—RATES.
C—ACCOUNTS.

A—Press Work.

1. Press Work.
2. Woodcuts.
3. Colour Printing.
4. Printing on Coloured Papers.
5. Rollers.

1. Press Work.

149. *Press Work* is the operation of taking perfect impressions from the type matter on to the sheet, and includes making ready the forme, arranging the tympan and frisket, the equal distribution of ink, pulling, &c. Making ready a forme is the most difficult and important of a pressman's duties, and in fine work requires skill, taste, and judgment. To perform this portion of his work satisfactorily, a pressman should study the best productions of the press procurable, and take them as patterns of workmanship. All the labour expended in casting founts of finely-cut letter, and in setting up type correctly and elegantly, is sometimes rendered of no avail by the inefficiency or negligence of the pressman.

150. *Superior Press Work.*—To produce a superior description of press work the following particulars must be observed. Type that has not been much used is requisite, as it is impossible to get a sharp and clear impression when the type is worn. The best presses should be selected, for if the press is not in a good condition, it will take much time and trouble to get an equal impression. The joints of the tympan should not have

any play, or the correctness of the register will be affected and slurs caused. To get a clear and sharp impression, the pressure should be on the face of the type only. The tympan should not be very soft, and a fine hard blanket, if any, should be used. The best impressions are obtained when fine thick paper alone is placed between the tympans, and even of this article few thicknesses should be employed. The sheet should be examined to see if the impression is uniform throughout; and if found to be so, the work may be proceeded with. If it is imperfect, the forme must be overlaid where light, and the heavy parts cut out, to produce uniformity of impression over the whole forme. The rollers should be clean and in good condition; the ink should be thoroughly distributed on the table, and the face of the type completely covered with it, but without any superfluity, so as to produce a full colour over the whole sheet; and the pull should be so regulated as to have a slow and heavy pressure, and a pause should be made when it reaches the maximum, so as to allow the ink to be fixed firmly upon the paper.

151. *Classification.*—Press work is divided into three classes, as follow :—

Class A—*Common:* rough form work.

„ B—*Ordinary:* fine form work and common book work.

„ C—*Superior:* fine book work.

Class A consists of forms, such as post office chalans, &c. which require little making ready, and are usually printed in long numbers on machines.

Class B consists of forms such as (*a*) Bengal Book Form A, and (*b*) work such as secretariat proceedings volumes, current letters and their enclosures, departmental reports, &c., which require greater care than Class A.

Class C consists of standard and scientific works, such as the *Palæontologia Indica*, which require skill and taste, as the impression must be perfect and the colour throughout preserved to a shade, necessarily taking up more time than work under Class B, and with which only experienced pressmen should be entrusted.

152. *Made-ready sheets.*—In book work, after a forme has been made ready, the pressman will submit the first sheet with the muster to the foreman, who will carefully compare them, and, if found to correspond, will pass the sheet to press : the pressman will be held responsible that the remaining sheets are printed exactly like the first. The pressman must see that the paper is properly damped before taking it over from the damper. He must also see that his press, inking table, and rollers are kept in good working order.

153. *Press Order Sheets.*—The foreman will see that the press register number, the initials of the department, the number of copies, the description of paper, the date of receipt, and the initials of the clicker, are written on press order sheets. In giving out a sheet to be printed he will write his initials and the date on it. When the number of copies required has been printed, the pressman will take the press order sheet to the foreman, who

will write the names of the pressman, inker, and fly-boy on it, with the date, and make it over to the clerk. The time occupied in making chargeable alterations at press should be written on the press order sheet and initialed by the clicker before it is given to the clerk.

154. *Counter.*—The counter will be held responsible that the correct number of copies has been printed before the forme is lifted from the press. In long numbers he will count the sheets from time to time, writing on the press order sheet the numbers struck off; and when the total number is printed, he will enter it on the press order sheet. In every case he will write his initials and the date.

2. Woodcuts.

155. *Woodcuts* vary from a simple diagram to a fine engraving. The former is easily made ready, while the latter requires patience, skill, and taste. Before cuts are imposed in a forme, they should be brought, by underlaying, to nearly the level of the face of the type. In underlaying, there should be as few pieces of paper and as little paste used as possible—the moisture in the latter sometimes causing the cuts to warp or crack. Before taking an impression the pressman should see that the face of the cuts is perfectly clean, and that no pins or pieces of hard paste are on the tympan. To prevent the fine lines of the cuts from being injured, the first pull should be gentle and gradual. In overlaying fine work, great nicety and patience are required to bring out the lights and shades, so as to produce the effect intended by the artist. A single

thickness of tissue paper is sometimes required, and so minute that it has to be taken up with the point of a penknife and placed in very small parts with the utmost exactitude. The paper should be torn, not cut, into the form required, which reduces the thickness of the edges, and causes the additional pressure to blend with the surrounding parts. When parts of the impression come up too heavy and other parts too light, a thickness of paper should be taken out from between the tympans, and an additional tympan sheet added, cutting away those parts that come off too heavy, and scraping down the edges, so as to equalise the impression. The light parts require little pressure, but the depth should be brought up so as to produce a full and firm impression. In overlaying, as little paste as possible should be used. A few thicknesses of hard, smooth paper, should be used instead of blankets. The parchment covers must be in good condition, tightly stretched, and of uniform thickness, so that the impression may be taken, as nearly as possible, from the face of the engraved lines. Pieces of cork, placed on the frisket with roller composition, bearing on the furniture, are of great service. Acting as bearers, they equalise the impression on the face of the cuts, and protect the edges from the severity of the pull. They also enable the pressman to add to or diminish the pressure on particular parts, so as to produce the desired effect. The rollers should be in the best condition, carrying as little ink as possible, and making up by extra distribution and extra rolling the small quantity of ink, which should be of the finest quality. After the number of copies required is worked off, the forme

should be laid up on the stone, and the cuts taken out and washed with turpentine, applied with a soft brush. On no account is lye or water to be used.

156. *Warped Woodcuts.*—When a woodcut has become warped, it should be laid on its face upon the imposing stone, with a few thicknesses of damp paper underneath it, and the flat side of a planer placed over it, with sufficient weight upon it; in the course of a few hours the block will be restored to its original flatness.

3. Colour Printing.

157. *Colour Printing* is required for forms of supply bills, remittance transfer receipts, money order advices, bills of exchange, and cheques and receipts, the majority of which are printed with coloured grounds on water-marked paper. The forms for the different provinces are printed in distinctive colours, as follow :—

Pink Ink.—Supply bills and remittance transfer receipts for Bengal.

Deep Orange Ink.—Supply bills and remittance transfer receipts for British Burma.

Chocolate Ink.—Supply bills and remittance transfer receipts for the North-Western Provinces.

Deep Crimson Ink.—Supply bills and remittance transfer receipts for Oudh.

Golden Yellow Ink.—Supply bills and remittance transfer receipts for the Punjab.

Deep Green Ink.—Supply bills, remittance transfer receipts, money order advices for Bombay and Madras, and regimental cheques for Military Service.

Brown Ink.—Supply bills, remittance transfer receipts, and money order advices for Hyderabad.

Colour Printing.

Dark Blue Ink.—Supply bills and remittance transfer receipts for Assam, Marine (Military) Service cheques, Bank of Bengal receipts, and other forms.

Mauve Ink.—Supply bills, remittance transfer receipts, set bills, money order advices, and Military Service cheques.

Black Ink.—Bills of exchange in triplicate.

Red and Magenta Inks.—Public Works Department, Post Office, and other forms.

158. *General Directions.*—Colour printing requires great attention, the least negligence in any part being easily detected. For work in one colour no more skill is necessary than is required for the production of a carefully-prepared impression in black. When two or more colours are employed, skeleton forms are prepared,—*i. e.*, as many distinct forms as there are colours to be worked,—and care in justification and register is required, so that each colour may fall exactly on the right place. In selecting borders for the more chaste descriptions of printing, if they are to be worked in any strong colour or in black, such as cover much surface should be avoided. When the lighter tints are to be used, they will bear extension over a larger surface. A border should be secondary to the matter enclosed, so as not to draw off the attention too much to itself. In selecting type for colour printing, solid-faced letters should be used, and outline type avoided. In printing colours with black ink, those of a deep hue should be avoided. A very light blue or lavender border, with a broad margin of white between it and the matter enclosed, imparts a clear, bright look to black ink, and whiteness to the paper. In mixing tints, the muller should be used to rub in the colour

thoroughly, otherwise the work is liable to be streaky. No more of a tint than is needed for the work in hand should be mixed. Most coloured printing inks work best if applied to the rollers a little at a time until the depth of colour desired is reached, as they distribute slower than black, and are more liable to thicken upon and clog the type when too great a quantity is used at once.

159. *Combining, and Contrasting Colours.*—In colour printing, a knowledge of the best methods of combining and contrasting colours is essential. The following are a few combinations that harmonise well:—

Two Colours.—Scarlet and deep green; orange and violet; light blue and deep red; yellow and blue; black and salmon; black and light green; dark and light blue; carmine and emerald.

Three Colours.—Red, yellow, and blue; orange, black, and light blue; light salmon, dark green, and scarlet; brown, light orange, and purple; dark brown, orange-yellow, and blue; crimson-lake, greenish-yellow, and black.

Four Colours.—Black, green, dark red, and sienna; scarlet, dark green, lavender, and black; ultramarine or cobalt blue, vermilion, bronze green, and lilac; sienna, blue, red, and black.

160. *Mixing Coloured Inks.*—A variety of tones, hues, tints, and shades of colour can be produced by mixing a few inks as follow:—

Yellow and carmine or deep red produce scarlet or vermilion. Carmine and blue produce deep lilac, violet, and purple. Blue and black produce deep blue or blue-black. Carmine, yellow, and black produce rich brown. Yellow and black make bronze green. Yellow, blue, and black make deep green. Yellow and blue produce bright or light green. Carmine and white make pinks of any depth. Ultramarine, white, and carmine form the deeper tones of lilac, &c. Violet and white produce pale lilac

or lavender. Cobalt alone or with white is a lively pale blue. Chinese blue makes a deep bronze blue ink. Emerald chrome, pale lemon chrome, and Chinese blue make any tone of emerald green ink required. Amber is made from pale yellow chrome and carmine. Red-brown may be made with burnt umber and a little scarlet-lake. Light brown is made from burnt sienna, shading with lake. Salmon may be made by a combination of white, burnt sienna, and orange chrome.

161. *Tints* of any desired depth may be made by putting down a finely ground white ink as a basis, and toning it with the colour desired.

162. *Varnish Tints* are made by adding colour to full-bodied, well-boiled printers' varnish, using a little soap and drying preparation to make them work smoothly and dry quickly.

163. *Recipes for improving Inks.*—When coloured inks are dull, tough, dry, or work badly, they may be softened and brightened by being mixed with other articles. The following recipes are good for brightening common qualities of black or coloured inks:—

Demar varnish, 1 ounce; balsam of fir, ½ ounce; oil of Bergamot, 25 drops; balsam of copaiba, 34 drops; creosote, 10 drops; copal varnish, 50 drops. Use in small quantities.

The whites of fresh eggs are also brighteners of coloured inks, but they must be applied a little at a time, as they dry very hard, and are apt to take away the suction of rollers if used for any extended period.

A good hardening gloss for inks is made with gum arabic dissolved in alcohol, or a weak solution of oxalic acid. Use in small quantities, and mix with the ink as the latter is consumed.

164. *Silvering Solution.*—When fine red inks or inks containing much red are to be used on electrotype or copper plates, the latter should be silver-plated, or well

washed two or three times with liquid silvering solution, which must be allowed to "set" before being used; otherwise the chemical properties of the copper will produce a disagreeable change of colour. The following is a recipe for making silvering solution for electrotype plates:—

Nitrate of silver, 2 drachms; distilled water, 37 drachms. Dissolve, and add sal ammoniac, 1 drachm; hydrophosphite of soda, 4 drachms; precipitated chalk, 4 drachms. Agitate the preparation occasionally for twelve hours, when it will be ready for use. Apply with a piece of fine sponge.

4. Printing on Coloured Papers.

165. Rolled coloured papers are used for printing British and Foreign money-order receipts. They are printed with black ink upon the following coloured papers:—

British, *green;* Italian, *pink;* Swiss Confederation, *lemon yellow;* The Netherlands, *slate;* Danish, *brown.*

In printing on coloured papers the appearance of the ink is affected by the colour of the paper. When black ink is printed upon a red paper it appears a dark green; upon orange, a bluish black; upon yellow, black, with a slight tinge of violet; upon blue, an orange-grey; upon green, a reddish-grey; and upon violet, a greenish-yellow-grey. Very chaste and pleasing effects are produced by the contrast of light and dark shades of paper and ink of the same colour; for instance, a deep green ink on a paper of light tone of the same colour is very good if a heavy letter is used. To secure the proper effect, however, the tints should be of the same hue—that is, if the groundwork is of a bluish green, the colour that is to be worked upon

it should also be a green, inclining to blue; if, on the other hand, the ground is of a yellower green, the body of ink should also be yellower; and so on. This may be managed by adding a small portion of ink of the colour required, until the hue is matched.

5. Rollers.

166. *Making Rollers.*—For working a forme well, the roller should be perfectly dry, and yet have sufficient suction to take the necessary quantity of ink without smearing the outer edges of the type. The materials generally used in making the composition are glue and treacle, but Harrild's patent composition is now substituted for the latter, as it has been found to improve the rollers. No general rule has been laid down for making roller composition, as the proportions of the ingredients must be varied to suit the temperature and other circumstances. The following proportions make a good serviceable composition: for the hot season, 1 part of the patent composition to 7 parts of the best China glue; for the cold weather, 1 part of the former ingredient to 3 parts of the latter. In making rollers, the glue should be steeped in water till it bends easily without cracking. The water is then drained off, and the glue left till it gets thoroughly softened, when it is put into the melting-pot and stirred occasionally till it is dissolved. If any hard pieces remain they should be taken out, as they will make the roller lumpy. When the glue is thoroughly melted, the patent composition is put in and stirred until it is "cooked." The composition

is tested by taking out the stirring-stick and holding it up, and if the composition hangs in strings it is ready to cast. Before pouring it into the roller-mould, the latter should be warmed, cleaned, and oiled. The end pieces and the stock, which should be perfectly clean and dry, are then placed in the mould, the upper-end piece being very open, to allow the composition to pass down between the interior of the mould and the stock. The stock should be prevented from rising by securing it with a piece of twine to the upper end of the mould. To allow the air to escape freely, and to avoid the holes consequent on its being confined, the composition should be poured very slowly, and allowed to stand until it is perfectly cold. After taking the roller out of the mould, the superfluous composition at the ends should be cut off with a piece of thin cord. If the fingers can be drawn smoothly and lightly over the surface of the roller, it may be said to be in working order; but should it be adhesive, it is not sufficiently dry, and should be exposed to the air. A roller should not be washed when taken from the mould, but should be kept with the oil on the surface until it is serviceable. One or two new rollers should be kept in reserve, so as to avoid using new ones until they are properly seasoned. In washing rollers, "lye" only sufficiently strong to start the ink should be used, when it should immediately be washed off with water, and the rollers carefully wiped dry with a sponge. Turpentine should be used for washing rollers after they have been worked with coloured inks.

167. *Re-casting Rollers.*—In re-casting rollers, it is

necessary at all times to add fresh ingredients, but the proportions must depend upon the state of the old composition.

168. *Preservation of Rollers.*—To preserve rollers in good working order, care should be taken to wash them with oil or lye before laying them aside for the night.

B—RATES.

1. For Making Ready. | 2. For Impressions.

169. The rates for press work include the covering of tympans and friskets, and keeping the press, ink tables, rollers, &c., clean and in good working order.

1. Making Ready.

170. *Making ready* is paid for per forme as under:—

	Press.			Machine.		
	R.	*a.*	*p.*	*R.*	*a.*	*p.*
Class A, for numbers of 1000 and under	0	1	0	0	1	0
For numbers above 1000, no charge is allowed for making ready.						
Class B, irrespective of the number of copies . . .	0	1	3	0	1	3
Class C, irrespective of the number of copies . . .	0	6	0	...		

(*a*) *Stereotype Plates* are paid 2 annas per forme extra.

(*b*) *Side Notes.*—Formes under Class B containing side notes are paid 6 pies extra per forme.

(*c*) *Woodcuts.*—Formes containing woodcuts are made ready on time.

2. Impressions.

171. *Impressions on Hand Presses and Machines* are paid for as follow :—

Size of forme.	Class.	Press, per 100 impressions. R.	a.	p.	Machine, per 1000 impressions.	R.	a.	p.
Under Demy . . .	A ...	0	1	3	Hand Machine,	0	3	0
	B ...	0	1	6				
	C ...	0	2	3				
Demy to Super Royal	A ...	0	1	9	Single Machine,	0	4	0
					Double Machine,	0	4	6
	B ...	0	2	0				
	C ...	0	3	0				
Imperial and upwards	A ...	0	2	0	Single Machine,	0	4	0
					Double Machine,	0	4	6
	B ...	0	3	0				
	C ...	0	4	0				

(*a*) In press work, 50 impressions and under are paid for as half a hundred; and 51 up to 100 impressions are paid for as a hundred.

(*b*) In machine work, 250 impressions and under are paid for as quarter of a thousand; 251 up to 500 impressions are paid for as half a thousand; and so on up to a thousand.

(*c*) Presses employed exclusively on short numbers of 30 copies and under are paid 1 anna and 9 pies per forme. No charge allowed for making ready.

(*d*) File copies are not paid for.

Rates for Impressions.

172. *Woodcuts.*—Formes containing woodcuts are paid for at the rates for Class C.

173. *Circulars* and *Letter Headings* are paid for at the rates for Class B, and *Envelopes* and *Labels* at those for Class A.

174. *Parchment.*—The pulls for work printed on parchment are paid for at the rates for Class C, and making ready at the rates for Class B.

175. *Coloured Inks.*—Cheques, bills of exchange, transfer receipts, &c., moveable or stereotype, printed in coloured inks, are paid for at the rates for Class C.

176. *Printing Formes in Colours by one pull.*—Full rates are paid for one, and half rates for other colours; making ready is paid for one forme, and half rates for every additional forme.

177. *Printing more Formes than one on a Press at one pull.*—Full rates are paid for one, and half rates for every additional forme; making ready is paid for one forme, and half rates for every additional forme.

178. *Alterations at Press and work printed on time* are paid for as in the table on page 10. Less than half an hour occupied on time is reckoned as half an hour.

179. *Clean Proofs in forme* are pulled on time.

180. *Division of Earnings.*—The amount earned by each press or machine is divided among the hands in the following proportions:—

When a press or machine is worked by two men:—

Pressman or Feeder	60 per cent.
Inker or Puller-off	40 „

When a press is worked by three men:—

Pressman	50 per cent.
Inker	30 „
Fly-boy	20 „

When a press is worked by four men, as with forme printed in colours:—

Pressman	45 per cent.
Inker	20 „
Inker	20 „
Fly-boy	15 „

181. *Substitutes.*—An inker who works as a substitute for a pressman, or a fly-boy for an inker, is paid at the rate for the higher grade; but if his work is rejected, he will pay whatever expenses may be incurred in replacing it.

C—Accounts.

182. One form is used for pressmen's accounts, *viz.*:—

FORM 77. Press work, i. THE PRESS BILL BOOK, in which are entered the titles and signatures of work printed, with the sums due to each man.

1, Month and year; 2, Serial number; 3, Date; 4, Register number; 5, Description of work; 6, Names; 7, Number of impressions; 8, Amount; 9, Signatures of Computer, Accountant, Deputy Superintendent, and Superintendent.

On receipt of the press order sheet from the foreman, the clerk writes the details of the charges on it, with the sums earned by the pressman, inker, and fly-boy, respectively. He enters in the bill book the press register number, the title of the work, the signature of

the sheet, the number of copies printed, the amount of alterations, if any, and credits the sums due to the pressman, inker, and fly-boy, respectively. When sheets of long numbers are unfinished at the end of a month, the number of copies printed is charged to account, the whole number being charged when completed, and the amount previously paid on account deducted from the total. At the end of the month the entries are totaled, and the bill book, signed by the computer, is made over to the accountant for check.

DIVISION IV.—LITHOGRAPHY.

1. Preliminary Observations.
2. Writing and Drawing.
3. Press Work.
4. Accounts.

1. Preliminary Observations.

183. *Lithography* is the art of drawing or engraving on stone, and the process of taking impressions from the same. It includes drawing or writing on prepared paper for transferring on stone; transferring on stone impressions taken from copper or steel plates, woodcuts, or type; line drawings with pen or pencil with lithographic ink; drawing on stone with prepared chalk or crayon; engraving on stone with steel point or diamond; producing photographs on stone or glass to be printed by lithographic presses; and producing chromos, or pictures resembling water-colour or oil paintings. Writing and ink and simple chalk drawings on paper or stone being sufficient for the requirements of this office, these only are treated of in this Hand-Book.

184. *The process of Lithography* is based upon the adhesion, to the smooth face of a stone, of an encaustic fat, which forms the lines or tracing; upon the power acquired by the parts penetrated by this encaustic of attracting to themselves and becoming covered with the printing ink; upon the interposition of a film of water, which prevents the adhesion of the ink in all parts of the surface of the stone not impregnated with the encaustic; and upon a pressure applied to the stone sufficient to transfer to paper the greater part of the ink which covers the greasy tracing of the encaustic.

Preliminary Observations.

185. *Lithographic Stones* are very compact homogeneous limestones, varying in colour from a light cream, dull yellow drab, or grey, to darker shades of the same colours. They are susceptible of receiving a very high polish, and a grain sufficiently close to admit of fine and sharp lines, and they must be hard enough to resist the acidulation to which the drawings are subjected before printing, and yet sufficiently porous to be impregnated by the greasy substances of which crayons are composed. The light tints are softer than the dark ones, and the grey are harder than the cream-coloured stones. In selecting stones for chalk work, preference should be given to those which are of an even grey or drab colour.

186. *Grinding the Stones.*—Stones are ground to remove the portions affected by the ink. This is done by grinding smaller stones on larger ones, moving them about with a circular motion, and strewing them over with sand and water. The stones should not be allowed to rest for a minute in one place, as the cohesion may become so great that it will be difficult to separate them. After the parts affected by the greasy particles of the ink have been ground away, the level of the surface should be tested by the straight-edge. The face of a stone may be considered level if a small piece of ordinary writing paper is retained by the straight-edge at several places along its edges and middle. The back of the stone should also be tested, and made generally level if it is found not to be so. The callipers should be used for testing the thickness of the stones, which should be ground more at the thick part. Before using

stones, it should be seen that they are perfectly level both on the lower and upper surfaces, otherwise breakages will be the result. To give the stone a curved edge for about half an inch all round, a rasp and fine file should be used, finishing with pumice-stone and snake-stone.

187. *Polishing the Stones.*—When a stone is to be used for line or pen drawing, or transferring, the face must be polished first with pumice-stone and finished with snake-stone. If an extra fine polish is required, a woollen pad and finely-powdered pumice-stone should be used. The stones should be free from scratches and sand-holes.

188. *Graining the Stones.*—Grained stones are used for chalk or crayon drawings. Instead of being polished, the surface of the stone is broken up into minute points, which, when drawn upon, receive the lithographic chalk in proportion to the pressure employed. This grain is necessary, not only in giving clearness of texture and transparency to the impressions, but, on account of its hardness and sharpness, in acting as a rasp to take off a sufficient quantity of crayon to give blackness and body to each dot. Stones selected for graining should be free from all veins, marks, and chalk spots, and, if for fine work, should be of a clear grey or dark drab colour. If the grain should be too coarse for the purpose required, the sand should be worked down more before washing off; if too fine, sand of a coarser grain should be used; if too flat, with lines running through it, the graining should be continued; if very fine and flat, without lines, fresh sand should be taken and the stone grained again.

Writing and Drawing.

189. *Transfer Paper.*—The use of transfer paper obviates the necessity for working backwards, as must be the case with work done on the stone. The following recipe will make a quire of transfer paper, royal size:—

Arrowroot	...	...	... ℔. 0½
Isinglass	...	...	... „ 1
Gamboge	...	...	... „ 0¼

The arrowroot should be first boiled with water into a thin paste, and, when cold, spread on one side of the paper with a brush. The isinglass and gamboge should be boiled together into a thick paste, and, when cold, spread with a brush over the paper previously prepared with arrowroot. To glaze the surface of the paper, it should be passed through the press, the side with the composition on it being placed next the stone. The paper should be kept in a dry place.

2. Writing and Drawing.

190. In *Writing on Transfer Paper,* a piece of paper should be placed under the hand, and the transfer paper should not be handled or touched with the fingers, except at the edges where there is no writing, as finger-marks from a moist or greasy hand will roll up blank. Corrections, if small, should be made by removing the ink with india-rubber or the ink-eraser; and if large, by rubbing it out with turpentine. The ink on the parts to be corrected must be taken out without leaving any of the previous ink, or the whole of the intended correction will roll up black. In some cases it will be better to paste a piece of transfer paper over the part

to be corrected, using as little paste as possible. Gum should not be used for this purpose. If the paper works greasily, it should be rubbed with powdered whiting or chalk, washed with turpentine, or rubbed well with india-rubber.

191. *Writing and Drawing on Stone with ink.*—The principal difficulty in drawing and writing on stone arises from the necessity of reversing the work, which places his process at a disadvantage in comparison with that on transfer paper; while, on the other hand, transfers are more liable to accident.

192. *Writing* must also be reversed upon the stone; but tracing for this purpose is inadmissible. Writing, when executed upon the stone, is more firm and will yield more impressions than if done by transfer; it should therefore be done on the stone only for fine work or for long numbers.

193. *Drawing.*—Before proceeding to work on the stone, a tracing of the drawing must be prepared. The tracing should be made in ink, placed in the reversed position upon the stone, and the red chalk tracing paper, with its prepared side downwards, should be interposed between it and the stone. The corners should be pasted down, and the work traced over with a hard point until a facsimile, in red, of the tracing is transferred to the stone. The tracing should be inked with a mathematical pen. All descriptions of work should be put upon the stone, whether it be polished or grained, in this way.

194. *Corrections on polished Stones* should be made with a sharp mezzotint straper. The part should be

entirely taken out without going deep into the stone, which should be avoided, as the pressure will be taken off at that part in printing. Where the alteration required occupies much space, and the nature of the work will permit, the stone, where necessary, should be polished with snake-stone, and treated in the same manner as for new work.

195. *Chalk-drawing on Stone.*—Grained stones are required for this purpose. The grain should be in proportion to the work in hand. Delicacy in outline and detail demands a fine grain, boldness in these particulars admits of a coarse one; it is, however, more easy to produce an appearance of coarseness on a fine grain than of delicacy and detail on a coarse one. The tracing should be put upon the stone in the same manner as with polished stones; the red tracing paper, however, should have but little colour upon it, as the grained surface takes off a larger quantity than the polished. If the paper is too red, it should be rubbed with a dry cloth until the necessary colour is obtained. The tracing should be as faint as possible, and should be lightly done with a brass point. The subject having been traced to the stone, the tracing papers should be removed, and a piece of plain paper fastened round its edge. Before proceeding to work, a piece of the paper should be torn out of the upper left-hand corner, the remainder being removed as the work progresses. The hand-board should be used to keep all pressure from the newly deposited chalk. The outlining should be completed before commencing to shade or lay in the tinting. The first tint should be laid in with light and regular

strokes, taking care not to commence or leave off heavily, as that would make it spotty. The chalk should be constantly turned in the hand by depressing the thumb to cause the porte-crayon to rotate, thus bringing a new clear part of the point into work. A smooth even tint being laid in, greater pressure and a blunter point should be used for the darker shades; thus making the previously covered grain-points accumulate more chalk, and, in still darker shades, some of them to join together. The point of the crayon should be kept proportionate to the tint required. Sharp points make fine tints, and thick points coarse tints.

3. Press Work.

196. *Press Work* is the process of taking impressions on paper from work on stones rolled with ink. In printing drawings, the pressman should have some idea of perspective, and of harmony of tones, as much depends on him, in bringing up the impressions, to produce the effect contemplated by the artist. As the work lies superficially on the polished or grained surface of a stone, the difficulty is to preserve the proper tone and mellowness in rolling it up with printing ink; the effect may be destroyed by overcharging it, or by failing to charge it to the proper point. By rapid or slow movements, and by greater or less pressure over certain parts, the work is inked to the proper tone. Press work includes transferring, etching, rolling up, and pulling the stone through the press.

Press Work.

197. *Transferring* is the process of putting on stone work previously executed with the pen on ordinary transfer paper, and with chalk on grained transfer paper. It also includes retransfers from stone, and impressions taken on transfer paper of type and woodcuts. In taking retransfers from the stone, the paper should be sparingly damped on the back. The superfluous water should be wiped off with a cloth, and in a few seconds the paper will lie flat, when it is ready to take an impression from the stone without breaking the composition in lifting. The work should be rolled with retransfer ink, the stone fanned until it is quite dry, and the impression pulled on the previously-damped paper. It will be found to adhere strongly to the stone, and must be raised carefully at the edges and peeled off. In taking transfers from type and woodcuts, the paper should be less damp than that used for retransfers. Letterpress ink and roller should be used, and to get a sharp, clear impression, a fine card should be laid upon the back of the paper when transferring the work to the stone. The stone for the reception of transfers should be polished free from perceptible scratches, and should be repolished if touched with gum or grease. It should be slightly warmed, as the ink more easily penetrates into its pores in this state than when it is cold. When the stone and the scraper are made perfectly level, the transfer should be laid face downwards upon the former, on the place marked for it. If several transfers have to be laid down upon a stone, they should be pulled through the press singly or in rows of two or three. After the transfer is laid on the stone, a piece of clean

printing paper, and over that a piece of fine blanket, should be laid over it. The stone should then be pulled through the press with a moderate pressure, which should be slightly increased in the second and third pulls. The backing should then be taken off, the scraper reversed in its box, the stone shifted a little on the press to remedy any slight defect in the tympan or backing, the back of the transfer sponged, and the stone pulled through the press again. The damping and pressure should be repeated twice or thrice, the stone removed from the press, hot water poured over the transfer, which should then be pulled off, leaving the ink and composition upon the stone. The composition should be washed off, and the stone gummed and allowed to dry.

198. *Cleaning the Work.*—The gum should be washed off with clean water, and the work rolled up carefully with ink of medium strength. The edges and other parts of the stone where there is no work should be cleaned with a water-sponge and a piece of snake or pumice stone, using a small pencil of the same to get between the lines. Should there be specks among the work that cannot be reached with the snake-stone pencil, the acid-stump should be used. The finishing touches of cleaning between very close work, reducing the thickness of lines, &c., should be done with the mezzo-tint-scraper or a penknife. The work should now be rolled up cleanly but strongly, and etched.

199. *Etching* is the acidulation of the stone by diluted nitric acid, the effect of which is to make the work lighter rather than stronger. It prevents the ink or chalk

from spreading when the stone is damped. In etching ink work, gum, acid, and water, of such strength as to effervesce gently when applied to the stone, should be used for the purpose. The mixture should be applied with a soft sponge, going regularly and quickly all over the stone, and again over the edges and other bare parts. The stone should now be gummed and allowed to dry. Care is required in etching chalk work. According as the drawing is composed of strong or delicate chalking, and the stone is of a hard or soft nature, the preparation should consist of from forty to sixty parts of gum solution, of the consistency of linseed oil, to one part of nitric acid. This should be mixed well together in a bottle, and a sufficient quantity poured into a large bowl. A flat camel's-hair brush, of not less than four inches in width, should be saturated with the solution, and applied to the stone in bold strokes from right to left, and left to right, until the stone is covered. The operation should be repeated, and if there are any dark spots requiring it, they should be further etched with the same solution applied with a smaller brush. The etching fluid should be rinsed off with water, and as soon as it is drained off, the stone should be gummed with a soft brush, and allowed to dry. Some hours, or even days, should be allowed to intervene between the preparation of the stone and beginning to print, though when the work is urgently required it may be put in hand at once.

200. *Marking the Stone for laying down Transfers.*—Before laying down transfers, it should be ascertained whether they are to be printed on the whole

sheet or on a particular part of it. If a small number of copies only is wanted, the work should be transferred to the part of the stone most convenient for the purpose; if a large number is required, resort should be had to retransfers, care being taken to place them properly in position on the stone. For methods of arranging work upon the stone, see the illustrations for imposition on pages 47 to 55.

201. *Inks*, as manufactured, are too thick for use, and require to be thinned with varnish before they can be used for printing. Ink reduced with thin varnish leaves the roller freely for the stone, but, if not carefully used, it will spoil the work by adding to the greasy properties already upon the stone, and by spreading with pressure. Ink made with strong varnish does not easily spoil the stone; if the stone should be made dirty by rolling after it is dry, on re-damping and passing the roller over it, the stone is cleaned by the roller taking up the superfluous ink. The less the body of ink upon the impression, consistent with the proper degree of colour, the better it will be; so the less varnish there is in the ink, compatible with ease in working, the more suitable will it be for printing. In reducing ink with varnish, the temperature should be taken into consideration, as medium varnish in the hot weather approaches the nature and properties of thin, while during the cold weather it becomes more like thick or strong varnish. It is better to err in having the varnish too thick than too thin. Inks of particular tints and shades must be specially mixed—see pages 93 to 96.

202. *A Roller* consists of four parts: the *block*, which

is of wood, with a tapering handle projecting at each end; the *flannel*, with which the block is tightly covered; the *skin*, which should be of fine calf-skin, tightly drawn over the flannel, and secured at the ends by a string passing through holes, and drawing the leather closely together; and the *handle covers*, which should be made of thick leather. Rollers should be prepared for use by rubbing tallow into them, rolling them frequently in varnish for a day or two, and occasionally scraping it off. A roller once used for black ink should be kept for that purpose only; but when used for coloured ink, it should, with due precautions, be made available for printing any colour. When a roller is required for various colours, it should be thoroughly cleaned for each change, otherwise the composition of the former colour will affect the next colour used. After printing with coloured inks, the roller should be immediately scraped, washed with turpentine, and wiped with a cloth. When a roller is to be put away for a time, it should be well cleaned, rubbed with tallow, and wrapped up in paper. Before using it again, the grease should be scraped away, and the roller washed with turpentine. A knife with a dull edge should be used for scraping rollers, care being taken not to cut the skin.

203. *Printing.*—Before printing, it should be seen that the ink and roller are in proper condition; that the damping cloth is prepared; that the stone is of the proper temperature; that the superfluous water is removed from the surface of the stone by the sponge; that the stone is properly "set;" that the "lay" is

marked on the stone with a broken lead; that the scraper is level and in its place; that the press is oiled in its working parts; that the backing sheet is in position; and that the stone is prevented from shifting by being set against a piece of wood between it and the front end of the bed. The stone should be uniformly damped; if any part has been omitted, it will take the ink in the next rolling. If the work be larger than the roller, the latter should be shifted about until every part is inked. Bearing heavily on the roller charges the work more rapidly than bearing lightly on it. Light pressure on the roller transfers but little ink to the stone, and also takes off some part of that which has been previously applied by heavy rolling. Slow rolling produces similar effects to heavy rolling, and quick rolling produces similar effects to light rolling; consequently slow and heavy rolling combined produces the maximum charging effect upon the work, while quick and light rolling combined has the greatest effect in clearing already over-inked work and making it sharp. Under ordinary conditions of rolling, too little ink will produce grey impressions, and too much ink smudged ones. The work should be done with as little ink on the roller as is consistent with a good impression, as too much ink is apt to produce ragged lines, to cause slurring, and too much blackness in the general effect. When the roller makes an audible sound in going over the work, rolling should be stopped or the work will be spoiled. After having inked the work, the roller should be "knocked up" before taking the next impression, which will allow the stone to dry a little, as a damp stone destroys the polish on glazed paper.

The edges of the stone should be kept clean, avoiding rolling over them, if possible; they should be sponged occasionally with gum and acid, and, if necessary, they should be polished again. To assist in preserving the coating of gum on the stone, it should be touched occasionally with the gum-sponge. In long numbers, the damping cloth should be occasionally washed to remove the gum that may accumulate in it, so as to prevent as much as possible its mixing with ink upon the roller, for if that should take place the roller will cease to ink properly and will require scraping. Separate sponges should be kept for gum, weak acid, and for water for damping the stone. They should vary in size, so as to be easily distinguishable from each other, which will lessen the liability to accidents. A large sponge should also be kept for damping the stone with clean water whilst making corrections. The paper should be laid on the stone in such a manner as to prevent the impression being slurred, the edge being laid by the pencil line before the rest of the sheet is allowed to come in contact with the stone. Impressions are taken in the same manner as in transferring, but the sheet should only be pulled through the press once. Care should be taken in lifting the paper from the stone, as it may tear or break if the ink is strong and the surfaces broad.

4. Accounts.

204. One form is used for keeping the lithographic accounts, *viz.*:—

Form No. 78. Lithography, I. REGISTER OF WORK RECEIVED, in which is

recorded the progress of work from the date of receipt up to the time of dispatch.

1, Date of receipt; 2, Press register number; 3, Number in Diary of Letters received; 4, Title of work; 5, Description of work; 6, Number of pages; 7, Size of page; 8, Time occupied in writing or drawing; 9, First proof sent—Returned; 10, Second proof sent—Returned; 11, Number of copies; 12, When printed; 13, Time occupied at press; 14, Date when made over to warehouse; 15, Warehouseman's signature.

DIVISION V.—STATIONERY.

A—WAREHOUSE. | B—RATES.
C—ACCOUNTS.

A—WAREHOUSE.

1. Warehouse Work | 2. Machine Ruling.
3. Envelope Making.

205. *The Warehouse* is for the reception and storage of paper received on indent from the Government Stationery Office; damping it and issuing it to the pressmen; hanging up printed sheets to dry; and taking them down to be "filled in" between glazed boards and pressed; folding, stitching, and trimming miscellaneous jobs; and for the storage of printed sheets until they are required for binding. It also includes numbering, perforating, and machine ruling.

206. *Issue of Paper.*—The following table will be found useful in calculating the quantity of paper required for different jobs:—

No. of Copies on a Sheet.	Number of Copies—24 Sheets to the quire.								
	50	75	100	200	300	400	500	700	1000
	qrs. st.	qrs. st.	qrs. st.	qrs. st.	qrs. st.	qrs. st.	qrs. st.	qrs. st.	qrs. st.
1	2 2	3 3	4 4	8 8	12 12	16 16	20 20	29 4	41 16
2	1 1	1 13½	2 2	4 4	6 6	8 8	10 10	14 14	20 20
4	0 12¼	0 18¾	1 1	2 2	3 3	4 4	5 5	7 7	10 10
6	0 8½	0 12½	0 16⅔	1 9⅓	2 2	2 18⅔	3 11⅓	4 20⅔	6 22⅔
8	0 6¼	0 9⅜	0 12½	1 1	1 13½	2 2	2 14½	3 15½	5 5
9	0 5⅚	0 8⅓	0 11⅙	0 22⅔	1 9⅓	1 20⅚	2 7⅚	3 5⅚	4 15⅙
12	0 4½	0 6¼	0 8⅓	0 16⅔	1 1	1 9⅓	1 17⅔	2 10⅓	3 11⅓
16	0 3⅜	0 4¾	0 6¼	0 12½	0 18¾	1 1	1 7½	1 19⅜	2 14⅜
18	0 2 1/18	0 4⅓	0 5 10/18	0 11⅙	0 16½	0 22 4/18	1 3 1/18	1 14 8/18	2 7 8/18
24	0 2 1/12	0 3⅜	0 4⅓	0 8⅓	0 12½	0 16⅔	0 20⅚	1 5⅓	1 17⅔
32	0 1 9/32	0 2 11/32	0 3⅜	0 6¼	0 9⅜	0 12½	0 15⅝	0 21⅞	1 7½
36	0 1 14/36	0 2 1/12	0 2⅞	0 5⅚	0 8⅓	0 11⅙	0 13⅚	0 19⅙	1 3⅓

207. *Damping Paper.*—Properly damped printing paper is necessary for the production of good press work. Damp sheets are more pliant, and receive the impression and absorb the ink better than those in a dry condition. The proportion of sheets to be damped in a quire depends on the quality of the paper—hard and well-sized papers requiring more water than those that are spongy. The former may be damped three, four, five, or even six times a quire, while soft, spongy paper, should not be dipped more than once or twice in a quire. After deciding the proportion of sheets to be damped in a quire, a clean wrapper is laid on the damping board, and a few sheets of the first quire are laid on it. The remainder of the quire is then drawn through the water, and, laying it on the few dry sheets left on the board, the bottom corner is turned up with the left thumb, and the number of sheets counted that will make the first portion of the quire, which is then opened out straight. If a quire is to be damped twice, it will be in two portions of twelve sheets each; if three times, eight sheets; if four times, six sheets; and so on. To take out the mark of the fold in the back of the paper, the last portion of every quire should be reversed, so that its back will be opposite that which is on the heap. After the paper is damped, the heap is laid in its proper place, covered with another damping board, and left for about half an hour to soak. On the expiration of that time, if the paper is not immediately wanted, a maund weight should be placed upon the damping board on the top of the heap for about an hour; as much more weight as can conveniently be placed on it should then be added,—the

greater the weight, the better will be the condition of the paper. The heap thus pressed for twelve hours, should then be turned and well mixed throughout, and again pressed for the same number of hours. If the paper is urgently required, it should be screwed down for a short time in the standing press. If the paper be too damp, a few dry sheets should be placed between every four, five, or six damp ones, and the heap be pressed in the standing press; if too dry, every half quire or so should be sprinkled, and the heap pressed as above.

208. *Issue of damped Paper.*—There should be no delay in issuing damped paper, as it is liable to be damaged with mildew if it remains long in the heap.

209. *Inspection of Paper.*—All paper, whether printed or blank, should be inspected from time to time, to prevent damage arising either from mildew or white ants.

210. *Drying printed sheets.*—After the printed sheets are received from the press room, they are hung up on lines to dry. Half-a-dozen sheets or so are taken at a time on to the "peel," and put on to the ropes. Care should be taken that the peel and ropes are perfectly clean.

211. *Pressing.*—When the sheets are dried, they are taken down and "filled in" between glazed boards, and then put into the standing press until they are smooth and glossy. If possible, the standing presses should be filled and screwed down before the office closes, and unscrewed the following morning. The time allowed for current work to remain in the standing press is regulated by the emergency of the case.

212. *Folding.*—In folding, care should be taken to place the folio of one page exactly opposite the other. The "signatures" should be kept uppermost.

213. *Gathering and Collating.*—After all the sheets have been gathered together in separate piles, a "signature" is taken from each; they are then collated by a careful reading of the successive signatures, to make sure that the pages follow each other in due order.

214. *Stabbing.*—The sheets are then stabbed or punctured, generally in three places, to allow the needle and thread to pass through in stitching. The outer holes should not be farther distant from the top and bottom of the page than one-fourth of its length.

215. *Stitching.*—In stitching, double thread should be used, and the knot should be tied over the thread passing above the centre hole.

216. *Cutting.*—In cutting, care should be taken to cut the edges straight. To ensure this, marks should be made with the compasses at the top and bottom of the first page near to the "fore-edge," so as to guide the eye in placing the work underneath the knife of the cutting machine. The "head" should be cut first, the "foot" second, and the "fore-edge" last. The margin at the foot should be about one-half greater than that at the head.

217. *Perforating.*—Machines are used for puncturing holes in forms of bills, cheques, receipts, vouchers, &c., so that the parts can be easily and conveniently separated. The machine being easily worked, the principal thing to be observed is to lay the paper so that the perforations will be made in the proper place.

Machine Ruling.

218. *Numbering.*—Machines are used for printing consecutive numbers on forms of bills, cheques, account books, &c. The figures are fixed on the circumference of a revolving cylinder, which is brought down on the paper by the pressure of the right hand on the lever. After an impression has been effected, the cylinder takes a turn, and another number is ready to be printed. The machine is self-inking, and prints as many numbers as there are wheels containing figures. Great attention is required in working this machine, as one of the wheels may slip, and so throw the numbers out of consecutive order.

2. Machine Ruling.

219. *Machine Ruling* is the process of marking paper with lines to guide the hand in writing, or for classification, as in the columns of account books, &c. "Faint ruling" consists of parallel lines in a pale blue ink; "feint and common" includes the feint ruling, and the red for head lines, money columns, &c. The principle of the ruling machine is simple. At each end of a frame a wooden roller is affixed, one of which is turned by a handle. Round these rollers revolves a broad band of canvas, and a series of small cords so arranged that the paper may be kept in its proper position while it is being ruled. The rollers are grooved to receive the cords, six being sufficient for general purposes. At one end of the machine is a table to which a gauge is attached for the accurate feeding of the paper, which is done as in the case of a cylinder machine. The sheets

are received on the canvas band, which carries them to the ruling pens, fixed in a slide formed of two pieces of wood united by screws. When the paper reaches the pens, the slide is lowered, and the sheet moving underneath receives the ink and the lines are formed. The pens are made of laten brass, and are the channels through which the ink is conveyed to the paper. They are made in pieces, generally five or six on a piece, so that rulings of various kinds can readily be made. If the pens arranged in pieces do not suit the width of the lines to be ruled, others are cut with a machine for the purpose. The ink reservoir is a piece of flannel, somewhat longer than the pens, and is slightly tacked on to the slide with brass pins, so that it can be easily removed. The flannel is supplied with ink by means of a small brush. To get the pens into working order, and the lines regular, a sheet of paper should be passed under the pens several times. The pens should all have a uniform bearing and pressure on the paper. If any have not sufficient bearing, they should be pressed down gently with the finger; if all have too much, or too little, bearing or pressure, the slide should be regulated accordingly by means of the screw for that purpose. Should any of the lines appear thick, the pens must be closed with the plyers till the desired fineness is obtained. When the lines appear too fine, the pens should be opened by carefully passing a piece of brass down their grooves. To ensure uniformity in ruling the lines, care should be taken in supplying the flannel with ink,—too large a quantity causing thick lines or blots, and too small a quantity, "missing," &c.;

the ink appearing here and there. When the weather is wet, the canvas sometimes becomes too tight; and when dry, too slack. This is remedied by using the screw attached to the bottom canvas roller. The canvas should be stitched sufficiently tight to allow it to shift gradually from one side to the other, about three times in the course of ruling a ream of paper.

220. *Mixing Inks.*—Take of red, blue, or black ink one quart; in another basin put one table-spoonful of ox gall, adding four ounces of cold water: mix them well together for a short time, and add the ink, which will then be fit for use. If blue ink, after standing for a short time, becomes of a greenish cast, pour it from one basin to another, and the colour will be restored. If the paper has a greasy or rough surface, additional gall is required to make the ink adhere. After each pattern is finished, two or three thicknesses of blotting paper should be drawn into the machine, and the pens lowered upon it, to draw the ink from them. When the flannel is taken off the slide, the ink should be well pressed out of it; the flannel and the brush should be washed in warm water at least twice a week.

3. Envelope Making.

221. *Envelope making.*—Envelopes are divided into two classes—one consisting of envelopes whose flaps close in the centre, and the other of envelopes whose flaps close at one end. After the sheets have been cut up by the paper-cutting machine into as many parts as there are printed addresses, about 250 thicknesses are placed at

one time on the envelope-cutting machine. A knife or die, shaped to the form of the envelope required, is then placed on the paper, and by means of a wheel, which works the machine, the die is forced through the paper. The paper thus cut is "combed" out on a board, a brush filled with thin paste is passed over the parts to be pasted, which are folded down by hand. The combing out should be equal, so that each envelope will receive a proper quantity of paste. The folding should be even, and the parts pasted down should be rubbed over to make them adhere.

B—Rates.

1. Machine Ruling. | 2. Envelope Making.

1. Machine Ruling.

222. The following are the rates paid for forms ruled on the machine:—

		Foolscap and under.	Demy to royal.	D. Foolscap and super royal.	Imperial and upwards.
		R. a. p.	*R. a. p.*	*R. a. p.*	*R. a. p.*
Making ready		0 3 0	0 3 6	0 4 0	0 4 6
Go-through work,	per 100	0 0 3	0 0 3½	0 0 4	0 0 4½
Ditto,	per 1000	0 2 0	0 2 6	0 3 0	0 3 6
Stop-work,	per 100	0 0 6	0 0 7	0 0 8	0 0 9
Ditto,	per 1000	0 4 0	0 5 0	0 6 0	0 7 0

In inner forms, where little shifting of pens is required, one-fourth of the above rates is allowed for making ready. Where shifting of pens is unnecessary, making ready charge is not paid.

Rates for Envelope Making.

223. *Division of Earnings.*—The amount earned by each machine is divided among the hands in the following proportions:—

Machineman	50 per cent.
Feeder	30 „
Puller-off	20 „

224. *Substitutes.*—A feeder who works as a substitute for a machineman, or a puller-off for a feeder, is paid at the rate for the higher grade; but if his work is rejected, he will pay whatever expenses may be incurred in replacing it.

2. Envelope Making.

225. *Classification.*—Envelopes are divided into two classes, as under:—

Class A consists of fine paper envelopes whose flaps are open in the centre.

Class B consists of common paper envelopes whose flaps are open at the end.

226. The following are the rates paid for folding and pasting envelopes:—

	Class A, per 1000.			Class B, per 1000.		
	R.	*a.*	*p.*	*R.*	*a.*	*p.*
Half sheets of all sizes .	0	6	0	0	4	6
Quarter sheets and under of all sizes	0	5	0	0	4	0

Fractions of 100 envelopes in the total monthly quantity are reckoned as one hundred.

Accounts.

FORM No. 83. Warehouse, 5. ABSTRACT OF DAILY ISSUES OF STATIONERY, which is used to facilitate the posting of the Stock Ledger.

1, Date; 2, Folio in Day Book of Issues; 3, Press register number; 4, Number of copies; 5, Quantity.

FORM No. 84 Warehouse, 6. CLASSIFIED MONTHLY ABSTRACT OF STATIONERY ISSUES, in which are entered the various descriptions and cost of stationery issued on account of the several offices.

1, Month; 2, Writing foolscap; 4, Writing double foolscap; 5, Printing super royal; 6, Printing royal; 7, Printing medium; 8, Printing demy; 9, Printing double foolscap.

FORM No. 85. Warehouse, 7. STOCK LEDGER, in which are entered and balanced the various descriptions of stationery supplied during the year, and their cost.

1, Date; 2, From whom received; 3, Folio in Receipt Book; 4, Quantity; 5, Rate; 6, Amount; 7, Total; 8, Month; 9, To whom issued; 10, Folio in Daily Abstract Book; 11, Folio in Departmental Ledger; 12, Quantity; 13, Total; 14, Amount.

228. *Receipt and Issue of Paper.*—Paper is received from the Government Stationery Office on indent, Form No. 79, and the quantity is entered in Form No. 80. The various descriptions of paper are arranged in reams, which are counted by the Deputy Superintendent, who initials each entry. The stationery-keeper receives daily from the Deputy Superintendent an extract (Form No. 81) from the Press Register Book of work received, showing the number of copies to be printed of each work. The necessary quantity of paper is then issued to the pressman, and an entry made of it in Form No.

82; each entry being initialed by the Deputy Superintendent, who checks about 10 per cent. of the issues. The issues are abstracted from Form No. 82 into Form No. 83, which are classified monthly in Form No. 84, from which they are posted into Form No. 85. The accounts are audited monthly.

D—RULING MACHINE.

229. One form is used for ruling machine accounts, *viz.*:—

FORM NO. 86. Ruling, 1. THE RULING MACHINE BILL BOOK, in which are entered the name, description, and quantity of work ruled, with the sums due to each man.

1, Month and year; 2, Serial number; 3, Date; 4, Press register number; 5, Description of work; 6, Names; 7, Number of sides ruled; 8, Amount; 9, Signatures of Computer, Accountant, Deputy Superintendent, and Superintendent.

As each job is completed, the file sheet, with the workmen's names and the number of copies written on it, is made over by the machineman to the clerk, who writes the details on it, and enters them in the bill book. When a work of which a large number of sides has been ruled is unfinished at the close of a month, the price of the sides ruled is charged to account, and the amount adjusted in the following month's bill book. At the end of the month, the sums credited to each man and the entries against each work are totaled, and the bill book, signed by the computer, is made over to the accountant for check.

Envelope Making Accounts.

E–Envelope Making.

230. One form is used for envelope making accounts, *viz.*:—

Form No. 87. Envelopes, 1. The Envelope Makers' Bill Book, in which are entered the number and class of envelopes made, with the sums due to each man.

1, Month and year; 2, Name; 3, Date; 4, Press register number; 5, Description of work; 6, Number of envelopes; 7, Amount; 8, Signatures of Computer, Accountant, Deputy Superintendent, and Superintendent.

When each order is completed, the file copy, with the envelope maker's name and the number of copies written on it, is made over by the maker to the clerk, who enters the work in the bill book. At the end of the month the number is totaled, and the maker credited with the amount earned by him.

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MEMO. FOR CLICKERS.

The following information must be written on, and put up with, files of work before they are given to the dispatcher :—

Book Work.

1. Whether new or standing matter.
   (*a*) The number of hours occupied in making alterations chargeable to departments.
   (*b*) The number of author's proofs supplied after the first.
   (*c*) A proof of cancelled matter, if any, must be put up.

Form Work.

2. Whether new or standing matter.
   A. In case of new matter :—
   (*a*) }
   (*b*) } As above.
   (*c*) }
   (*d*) If faint ruled—By ruling machine ;
   (*e*) By press, with the time occupied in composing the rule forme.
   B. In case of forms composed partly of new and partly of standing matter :—
   The number of pages composed ; the number of pages standing ; and *a* to *e* as above.
   C. In case of standing matter :—
   Whether type or plate.
   If plate, whether new or previously cast.
   (*a*) to (*e*) as above.

Job Work.

3. Where required, information as above.
   In case of long numbers—
   The number of pages composed.
   In case of envelopes—
   Whether made in office or supplied by the indenting party.